BOLTON BROWN'S

BOOK ON

LITHOGRAPHY SINCE WHISTLER

1933

PART I

CHAPTER I

SENEFELDER BRINGS THE ART INTO EXISTENCE, ETC.

I have written about lithography before, but evidently I have not done it enough, or have not done it well enough. I have wanted to spread a knowledge of its origins, to define its name and to explain its powers. A knowledge of its origins may not be strictly necessary, but to know what the name includes and excludes, in the vocabulary of those who know, and what it ought to mean in the vocabulary of everybody--this is necessary. That the public should know its powers is desirable. Without such knowledge new artists are not likely to be drawn to it. Without it a layman can look at a print only as a child looks at a picture book, amused by the subject and its associated ideas, blind to design, skill, craft,--to all that makes it a work of art. Lithography in America is in a muddle. There is enormous ignorance, enormous indifference. There is also fraud, hypocrisy, and charlatanism. There are plenty of people, individuals, here and there, who stand in no need of remarks from me, who see things without muddle; but the majority do not.

In a matter of this sort a definition that cannot be upset or disputed about is not to be found in the dictionary: it is to be found in history. Turning to the historical story, beginning at its beginning and coming along down with it, what do we find? Let us see.

Lithography began in Bavaria in the year 1798. Two decades after it had come into general use its inventor published a book containing an account of how he brought it into existence and of its methods and powers. The first words of the title of this volume are "Complete Text Book of Stone Printing", and further down on its elaborate title page is the statement that it was "Written and Published by the Inventor of Lithography and Chemical

Printing, Alois Senefelder. 1821."

Here I will explain a little. Senefelder, before he invented his grease-and-water method, printed from reliefs in the age-old way, in principle just like common type. The reliefs were not, however, of type metal: they were of stone. Senefelder never got this use of the stone entirely out of his head: all through his book are echoes of it. In these stone reliefs the sunken parts were sometimes chiselled out with engraving tools, sometimes dissolved out with acid. It is the printing of these stone reliefs that he is referring to when he uses on his title page the word "Stone Printing". This way of printing had nothing to do with lithographic printing. For what reason he used the two words "lithography", and "Chemical Printing",--separated by an "and", as if they meant two distinct things, it is hard to see. In the book his custom is to use these interchangeably as referring to the same thing. Senefelder knew, and elsewhere states, that "lithography is a branch of chemical printing".

The occurrence in the title page of the term "stone printing" is unfortunate because it sets up a confusion with the grease-and-water method which, when from stone, is also "stone printing". However, we do not need to worry much about these old terminologies: history they are, but they are ancient history now and no longer in use. In his own time Senefelder got around the ambiguity in the word stone printing by inventing for his grease-and-water system the name "chemical printing". This was not synonymous with "lithography", for the latter, as above stated, he classed as a "branch of chemical printing".

He was correct in speaking of it as a branch; but I am not so sure he was right in the use of the word "chemical". As a mere

name of course any verbal symbol will serve, but as a description, which it obviously aims to be, I question it. Is the repulsion between grease and water a chemical phenomenon? There is no chemical reaction: the grease remains grease--at any rate as far as the water is concerned--and the water remains water: Where then is the chemistry?

As a synonym for Senefelder's "chemical printing", in our days the word planography is coming into use. Planography prints from a plane--any plane, of any material. If the material is stone the print is a lithograph.

A design may be got on stone in one of several ways. It may be printed off upon it from some other surface; for instance, a surface of paper. When so printed off it is said to be "transferred". In whatever way the design is put upon the stone, a print from it is a lithograph. The word lithograph--as a printing conception--means a planographic print from stone: nothing else. Let us get this very clear, for it is very important. If we were to make a portfolio of prints all of which had been printed from half-tone blocks, we should have a collection of typographic half-tones. Any kind of a design may be translated into a half-tone regardless of what the original was. In the same way, many kinds of designs may be translated into lithographs--regardless of what the original was. The word lithograph, thus used, means nothing whatever except that the design has been reproduced--that is, printed, by Senefelder's process. The half-tone is one kind of reproductive process: the lithographic method is another kind of reproductive process. In the half-tone one uses a camera and other contraptions: in lithography one uses no camera, but prints from the design itself upon the stone. In both cases the effect is to produce a number of reproductions of the original design, in the one

case called half-tones, in the other, lithographs.

This meaning of the word is not its original meaning, but it ~~has~~ is the meaning that most people put on it today. This new meaning has only come about since the last decade of the last century. Before that time lithographs were understood as being prints from crayon drawings on stone. But there was brought a lawsuit, in London, which turned on the question of what might and what might not be called a lithograph--in the eye of the law. After decision was rendered, anything printed by the Senefelder process might be called a lithograph. Mr. Pennell has proclaimed and more or less established, all over America, this new usage. By it, prints which formerly could not rightly call themselves lithographs now can, legally at least, call themselves lithographs. In order that we might still have a word that meant what the word lithography used to mean--all down the ages--I have coined the word "Crayonstone".

Of lithographs there are many kinds. What is it that makes them into different kinds if all are printed alike? It is the design. Although when classified by the mechanical fact of the printing they are all in one class, when classified by the artistic fact of the design they fall into very different--often very remote — groups. A print from a wash drawing is called a lithotint. Its character is peculiar to itself: it must be: every design has a certain character imposed on it by the nature of the materials used in its production. If a print from an engraving on steel is transferred to stone and printed, the print is technically a lithograph; but the character of the design, as you look at it, is that of a steel engraving. It looks as though it had been produced by cutting channe~~l~~ls in steel. Its merits are the merits of a steel engraving. It cannot have any artistic merit which the original

steel engraving did not have. If it fails to have all the merit the original had, which it does, the failure is due to the imperfections of the transferring and the printing; it is a reproduction and less perfect than the thing reproduced.

If, similarly, a print from an etched plate is transferred to stone and printed, the print is a lithograph. In its visible character the design is an etching--the qualities of the original design determined by the necessities of copper, needle, wax, and acid. But, solely because of its printing, it has now become a lithograph.

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Pictures precede reproductions of them; and drawings are executed in many different mediums, each quite different from any other. Every medium exerts an influence on the man who uses it; and in proportion as he has any sense he does not try to escape this influence: he identifies himself with it, reaching out into the infinities of nature after just those qualities his material enables him to deal with best.

Artists have produced drawings with brush, pencil, chalk, and charcoal. Drawings made with any one of these materials may logically be divided into different sub-classes. Among pencil drawings, one done with a hard pencil is in a different class from one done with a soft one. The hard pencil is like silver point: the soft one like chalk. Moreover, not only does the character of a drawing depend upon the substance drawn with: it also depends upon the surface drawn on. A pencil mark on ivory is a totally different thing from one drawn on a brick; and drawings executed upon these surfaces must have corresponding differences.

Any print or drawing made with substances containing

chemicals that affect the stone, can be transferred to stone and printed therefrom. And the print, regardless of the origin of the design, is a lithograph. Almost any sort of print can be transferred, because almost any print is made of ink, the grease of which affects the stone thereby making such reproduction possible. With drawings the case is different. You cannot transfer a lead pencil drawing and print from it because graphite has no chemical effect on the stone. For the same reason you cannot reproduce in this way a drawing done in any of the ordinary materials. However, lithographic crayon, invented to draw with upon stone, may be used upon paper; and a drawing so made can be transferred to stone and printed from. As a print, the reproduction of such a drawing is a lithograph: but as a drawing it retains the character natural to work done on paper.

Among other surfaces that artists draw upon is that of lithographic stone. Among the materials used on this surface is lithographic crayon. A drawing on stone with lithographic crayon has a character peculiar to itself. Its character is not the same as that of a drawing done on paper; because stone and paper take the crayon in different ways.

The art of drawing exists independently of any form of printing; and, disregarding all thought of printing, and thinking of the story of lithography as the story of a form of drawing, we see that it has been of a very high importance. True, it was in the form of prints that people got it; but it is not how they got it but what they got when they did get it that signifies. What they got was a practically perfect reproduction of a crayon drawing on stone, an article originally and universally known as a "lithograph". The drawing had a character peculiar to the crayon as used on the surface of the grained stone. As neither this crayon nor this

surface existed before Senefelder's time, a new kind of drawing was then born.

I think I have made it clear, even to tediousness, that among different forms of planography one form is lithography: and that lithographic prints vary according to the surface they are drawn on and also the material they are drawn with. Among other ways to execute a drawing on stone is the way by means of crayon. For the purposes of the student of the history of drawing--disregarding all questions of printing--this form is readily seen to be so superior to other possible ways to draw on stone that practically the whole story of artistic lithography is the story of this art.

There has been a wide propaganda to get people to believe that drawing on paper and transferring to stone and printing is practically the same art as crayonstone. To achieve this end, lying, loud and strenuous, has been done in some quarters; and lying by selences and tricks has been done in others. One of the tricks, as I have just said, is to assume that transfer and crayonstone are the same art. Another is to insist that one name shall cover them both. But hereafter no one need be taken by this cuttlefish trick of verbal ambiguity. If any one speaks of crayonstone, his meaning is perfectly clear. Crayonstone covers all the art of the golden period of lithography. It is the art that educated the populations of Europe, for the first time, in the art of drawing. Engravings they had before; but prints of real drawings, designs freely executed with a suitable substance on an ideal surface by competent artists--this they did not have before.

My own lithographs are crayonstones. So are those of George Bellows, Albert Sterner, John Sloan, Chauncey Ryder, Thomas Moran, Ernest Jackson, Frank Brangwyn, Ethel ~~Gagain~~ Gabain, John Copley, Spencer Pryse, Daumier, G~~i~~avarni, Mouilleron, Duzats, Ciceri,

Bonington, Isabey, Gericault, Haghe, Boys, Prout, Harding, and as many more as one chooses to call to mind. It was these men, and scores like them, who for a hundred years developed, perfected, and artistically employed--Crayonstone. This is not the art followed by Whistler or Pennell.

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Coming back to Mr. Senefelder and his famous treatise, my next offering is the remark that Senefelder was rather a crank on "methods", constantly beset with, and fascinated by, glimpses of new ways of doing things. His impulse was to dig into each new possibility, develop and describe it. His book is a museum of methods--actual or possible. Time, however, has dealt with all these old conceptions: those found useful have been used; the rest lie under an age-deep coat of dust. He tells us that his purpose in writing his book is mainly to teach the new chemical printing from stone, and that he "will occupy himself chiefly with it". He states that "among bodies available . . . limestone maintains an eminent place". Having enumerated a number of its advantages he finishes by saying that, because of these, he "came to use these stones as the principal means of making countless experiments, whose happy result has been to elevate stone printing (lithography) to an art by itself".

It would have been better if he had said a "craft" because, except in the loose sense in which almost any human activity is called an art, printing is not one. Printing is a craft. In the region where we now are this distinction is of unusual importance; because the story of lithography, as a whole, is really two histories: one is that of a fine art, the other that of a handicraft. Artists created lithographic drawing. A printer, Senefelder, invented plano-

graphic printing. This is all he was qualified to invent; and his knowledge of, or interest in, art, as such, was no more than that of the man in the street.

The world loves an amusing anecdote and cares not at all for veracity. There is a well-worn anecdote about Senefelder's having happened upon lithography by means of a wash list for his mother. No doubt our great-grandchildren will go on repeating this story, and believing it. It contains not a word of truth. I mean it has nothing to do with planographic printing. He did write a wash list, and on a stone. Afterwards, just to see what would happen, he etched it into relief and took prints of it. These prints were "stone prints", true enough, but neither lithographs nor any other kind of planographs, nor containing any hint of the planographic method.

The true story of the invention of planography is as follows. Senefelder noticed that if he dipped a piece of paper having greasy places upon it into water with a little oil in it, the water would wet the paper but not the grease spots and that the oil in the water would remain upon the grease spots but not on the paper elsewhere. Here was the germ of the new method--a plane surface, the greasy places holding grease, the wet places holding water. He had, he says, observed that the wet paper refused the oil more decidedly if it had been treated with a solution of gum arabic or of starch paste. He therefore made a thin gum solution, and, reflecting that printer's ink is greasy, took a leaf from a printed book, passed it through the gum solution, laid it, printed side up, wet and flat, upon a flat surface, and "touched it everywhere with a sponge that had been dipped into thin oil color".

This was the first inking for the first planographic print ever made.

"The printed letters took the color well everywhere and the paper remained white." Now he laid a clean white sheet upon this and put both through the press. The color printed itself off upon the white sheet.

This was the first planographic print ever made.

It was not printed from stone or from metal but from paper. Naturally, it soon became evident that paper was too tender a substance to serve long in this capacity, although our inventor found he could take fifty prints before the paper was worn out.

"So I came to find," he writes, "that I had a process depending solely upon chemical action" and one "totally and fundamentally different from all other processes." He had discovered lithography--in principle. The wearing out of the paper caused him to seek for a stronger material. He tried the stone itself. He describes how he took "a cleanly polished stone, inscribed it with a piece of dry soap".

This was the first lithographic crayon ever used.

Then he "poured gum solution over it and passed over all with a sponge dipped in oil color." Where the soap had marked it, it became "black at once, the rest remained white".

This was the first inking of the first crayonstone lithograph ever made.

When in place of the sponge and thin ink he substituted an ink roller and stiff ink he obtained "perfectly black and handsome impressions".

These were the first good crayonstone prints ever made.

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However, at the time when Senefelder was absorbing himself in shaping up these mechanisms, before any of the beautiful prints

which they were to give rise to had been made, he was not thinking about art: he was thinking of ease, speed, and cheapness. And his very first impulse, when he had in hand the planographic method of printing,--referred to ~~be~~ by him as the "new way"--was to "hurry to write a sheet of music".

But even so forward-looking a man as he could not quite jump to the "new way" without intermediate mental fumblings. Having long conceived of printing as done from a surface in relief, he cannot rid himself of a prejudice in its favor. Therefore when he had hurried to write a sheet of music, and had written it, he gets cold feet about the new way, pauses and reflects that "it is easy to see that a drawing etched into relief would be easier to print from than one not etched at all". A reflection that merely shows the futility of reflecting in the absence of knowledge to reflect upon. Senefelder had no knowledge of how easy it would be to print a stone not in relief, because he had not had experience of it. He merely jumps to a consluSion--an erroneous one. And then he goes ahead and etches his sheet of music into a relief. However, he says that it did not require "much" etching, and that he "saved a great deal of acid".

Presently, etching less and less as he experiments, he finds that the supposed need for relief is a pure illusion. He could print without it, and writes that "good impressions could be obtained, even when the drawing was perfectly level with the surface of the stone". This is the first plain statement that the planographic method of printing had got clearly into existence, its capacities at last definitely recognized by its inventor.

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It is amazing how an idea--true or false, matters not,--that has once gone abroad seems to be totally indestructable. It goes on forever. The notion that, as Senefelder puts it, a stone prints easier if it is in relief, is still afloat among practical printers in the shops. One of them will speak with satisfaction of having a stone "good and high"--the "high" referring to its degree of relief. In his treatise on "The Illustration of Books", Mr. Pennell says the purpose of the etch is to "fix the drawing and somewhat reduce the surface of the stone". Having myself printed many thousands of the finest possible impressions, I can affirm, from personal knowledge, that this notion is a superstition pure and simple. The stone prints because water and grease do not invade each other's territories; and in no degree because one part is higher than another.

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There was an Englishman, Charles Hullmandel, who, early in the nineteenth century successfully devoted himself to lithography. He was a professional printer, as well as a draughtsman on stone, and conducted a public printery. There was a Frenchman, one Monsieur Raucourt, who did the same in France. M. Raucourt wrote what Hullmandel refers to as an "excellent treatise on lithography". "The clearness and method," Hullmandel says, "with which M. Raucourt has written are such that any person, by reading this short treatise, may after a few trials be certain of success." Hullmandel translated and published Raucourt's treatise. My copy of this translation is given as the "second edition" and bears the date of 1821. In Raucourt's preface he writes, "It is said that Herr Mitterer, the professor of the public school of drawing, (in Munich) invented the composition of the chalk."

The first enthusiasm of Senefelder was for printing "ink drawings." He invented a chemical ink for making such drawings. He put into it substances which would make a spot on the stone from which he could print. He tells us that "the first and most necessary material in a stone printery is the so-called chemical ink". "Countless different mixtures," he writes, "can be made, most of which fulfil their purpose. But there enters the consideration that it must be an ink easy to use, that handsome work may be done by the artist with perfect ease." He had the right idea, about the artist, but causes purely physical prevented the inventor from serving the artist as perfectly as he would have liked.

Ink drawing on stone never grew into artistic importance. Perhaps, once in a great while, you may come across a design made in that way; but it took no serious root. Not because it was difficult to print: it is the easiest of all things to print. The trouble was in making the drawing. You cannot use on stone a free-flowing watery ink, like common writing ink, because the porosity of the stone causes it to spread, as it does on blotting paper. And if you thicken the ink enough to prevent this, then, if used with a brush it lacks freedom, and if with a pen it clogs on the point. A pen also scratches up bits of stone that interfere with its performance.

As to wash drawing on stones--called lithotints--these, like pen drawings, can be made: but, like pen drawings, they are troublesome and generally imperfect. One of the difficulties is that the moment the watery wash is applied to the stone the parts touched by it are made temporarily and deceptively darker--just as you see the rocks get dark spots where the first rain drops fall. But in making a lithotint this difficulty is as nothing compared to the ever-present one that the wash is composed of invisible chem-

icals--to affect the stone--, and invisible lampblack--to affect your eye. And the print of course comes out according to what the invisible chemical has done, and not according to the lampblack which guided you--for lampblack has no effect on the stone

It is true that in work where exact values are not the primary aim good guessers have sometimes produced interesting lithotints. And I know that occasionally, in picturesque subjects where values are somewhat hit-or-miss, excellent draughtsmen have brushed in small areas of tint--accents and corners, here and there. But the Crayon has always been the backbone of the thing; and as such has never been dependent upon such touchings-up with the wash. And you will observe that it is practically never used in such landscapes as require true tones in large spaces; and that nobody draws the nude figure or portraits with it: the tones it gives you are too uncertain to make such work practicable.

Laying aside as of relative non-significance in the history of art, both pen drawing on stone and wash drawing on stone, we arrive at that form of drawing on stone that was of significance, in fact, the highest significance,--crayon work. Historically--if one is speaking for the broad truth--he must say that this kind of work has been practically the whole thing. Not one per cent of historic lithographs are made by any other method. The story of lithography as an art is the story of -- Crayonstone.

PART II

THE OLD LITHOGRAPHY

Drawing is a matter of fine art; but printing is a matter of craftsmanship. The value of this craftsmanship, in lithography, is purely economic. Fifty reproductions of the same drawing are no more beautiful than one is. Simply, they reach a greater number of people, and therefore you can sell them for more money. But the excellence of the original is in no way affected by this wider distribution and greater harvest of money: it remains exactly what it was.

Floating vaguely in the public mind there is an idea that one medium is more and another less "artistic", in itself, regardless of what is done with it. This attribution of virtue, being not an act of judgment but ~~as~~ a matter of fashion, fluctuates irrationally. Some generations ago water color was not taken seriously: it was for children and boarding school girls. In the days of our great-grandfathers steel engraving was in fashion. At that time etching was hardly known to exist and was hardly esteemed at all. By writing his excellent book "Etching and Etchers", and publishing his magazine "The Portfolio", Hamerton did much to break down the prejudice against etching--for all fashions are prejudices. Exploiting the mastership of Seymour Haden, the house of Keppel, the print dealers, so well finished what Hamerton had begun that now etching is fashionable to a degree that is ridiculous. It has become one of our major industries. Meanwhile, steel engraving hardly exists. A century ago, lithographs were in fashion: later, they went out of fashion: now some people say there is a faint hint of their coming into fashion again.

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The principle of lithography, merely as a printing pro-

cess, was given, briefly, when I gave an account of its origin. Now, speaking as a workman immersed in it for years, I purpose to expand that account considerably.

To begin with, I shall set forth some chemical facts. When an alkali and an acid unite they form a compound that is not a physical mixture but a new substance. The stone you draw on is an alkali, lime, in chemical combination with carbon; forming the substance known as carbonate of lime--simply, lithographic limestone. In the presence of some acids the lime will reject the carbon and form a new substance with the acid.

Certain acids are called "fatty acids". Animal fats are of this class. Tallow is an animal fat containing two acids, one a solid, the other a liquid. The solid one is stearine (stearic acid) and the liquid one is oleine (Oleic acid). Stearine is about as hard as paraffine. Oleine is similar to olive oil. Some waxes, also, contain acids which, like those already mentioned, will combine with limestone. If you touch the stone with, for instance, stearine, there is at the point of contact a chemical reaction: acid and alkali unite; a new substance is formed, stearate of lime. This spot of stearate of lime will stick to anything greasy but to nothing watery. This is the spot we print from. For that reason I call it the "printing spot". The common idea is that it is a "grease spot". It is not: it belongs to a class of substances known to chemists as "soaps": it is a lime soap. The soaps we use to wash with are soluble, but this is not. If you ~~bather~~ bathe in hard water the lime in it unites with the trace of oil from your skin, forming the insoluble granules you see in the bath water.

Washing soaps contain fatty acids that have been rendered soluble by saponification with lye. Such soap is a usual ingre-

dient in common lithographic crayon. This crayon is compounded of a number of substances intended to give it a consistency suitable for drawing, and at the same time to create a chemical printing spot on the stone.

The lithographic surface is stone. The grain of the natural stone is fine, like that of a close-grained whetstone. The texture we draw on is produced artificially. The stone is planed flat and then ground with sand or other substance, under a weight. Coarse sand gives coarse texture: fine sand gives fine. Since there is no limit to the size of the abrasive grains, there is no limit to the varieties of texture possible on the stone.

A mark on grained stone is composed of particles of crayon scraped off by the points of the stone's granules. A light pressure produces a light tone--the lightness being due to the crayon's touching only the summits of the grains of the stone, leaving untouched relatively large interspaces. The heavier the pressure on the crayon the larger will be the scraped off particles and the smaller the untouched spaces between. Pure black is not readily obtained; but it does come if sufficient pressure is used to eliminate the inter-granular spaces entirely. In a word, the crayon responds just as a lead pencil does--a light pressure gives a light mark, a heavy pressure a dark mark. Your values are thus a scale of greys, granular in nature. The tones of a design are silvery--running up almost to white and down almost to black. Almost to white, I said, but of course one may include flat whites--spaces that show as blank paper in the print. But the greys really constitute the true language of the art--not whites or blacks. When people praise a lithograph for its "magnificient blacks", they are praising it for "a virtue it should blush to possess".

Greys are composed of pure black particles so small and so numerous that visually they combine with the white around them into a tone--much darker than white, much lighter than black, yet depending for its brilliance and transparency upon just this extreme contrast between white and black. Each black granule of a tint represents a "printing spot". One minute spot--this is the ultimate unit we printers deal with. It may be as large as a particle of coarse sand or so small as to be microscopic. It exists in galaxies of millions; but as all of them are under the same law I shall speak of but one.

Now consider one of the bits of crayon that a granule of the stone has scraped off and hold. Its blackness is the blackness of the crayon. Underneath this visible blackness is a chemical spot. You do not see it because the crayon covers it. Moreover, you could not see it if the crayon did not cover it, because it is invisible. Chemically it exists; visually it does not. If this chemical spot is to print it must first be inked. If, before we pass the inking roller over it, we wet the stone, the ink of the roller, being greasy, will not adhere to the wet stone except where the printing spot is. But complications arise, when we think of wetting a crayon drawing. Some crayon is soluble on account of the soap it contains; and if we were to go ahead and put water on it the soluble, fatty acids would spread about in the water, attack the stone, and ruin everything. We get around this difficulty by putting into the water a little nitric acid. This neutralizes the alkali in the soap of the crayon and renders it insoluble. We can, if we chose, now pass the roller over the wet stone and so charge the crayon with ink. This ink we can take off again in the form of a print--a lithograph. But, for the reason that the ink was put on

the crayon, instead of on the printing spot of the stone, the crayon will get mixed up with the ink and the print will be composed of both substances and will probably be bad. But if printing is continued and a little of the crayon comes off each time, presently it will all be off and then good prints begin to come, because now the ink goes down on the printing spot itself, where it belongs.

This bald and highly simplified account may serve to make clear the fundamental principle. In practice a number of complications come in. It is indeed possible to print exactly as above described and possible even to get a good print or two; but no one could print an edition that way. The printing spots, if we tried it, would very soon begin to squash--I mean the load of ink on them would widen out under the necessary printing pressure. For the reason that the printing ink is itself greasy, it will, if it comes in contact with the stone, form a printing spot of its own. Theoretically, the wetness of the stone prevents this contact, but inasmuch as both the printing spot and the ink on it tend to repel the water film, this film is apt to be at its very thinnest just where it is nearest to the edge of the printing spot. The edge of the spot, therefore, tends to get dry, and because of this the ink, sooner or later, and little by little, will overrun the boundary of the original spot and so print an enlargement of it. And when all the spots are doing this, the tone is growing darker. "The stone is going black", the printers say. If the printing is continued, it will not be long before the design will disappear in one all-embracing black.

I have put in the above account in order to make clear the function of the next step--which is the "gumming". If a water-soluble gum--it is generally gum arabic--is dissolved and put on the stone and dried there, and afterwards wetted, there will

remain a thin coat of gum which, with delightful efficiency, keeps the ink from overrunning its proper territory. This gum water will not enable you to print forever but it will enable you to print many times what you could without it; you can pull, sometimes, a small edition. It is really the gum film that renders practicable printing in any considerable numbers.

In speaking, a moment ago, of the acid, I said its function was to harden the crayon. And, in the circumstances given, that would be its function. But now that we have introduced gum into our operations it has another function entirely. In fact, if you were to put gum on a crayon drawing, it would not matter, so far as the dissolving of the crayon was concerned, whether acid was used or not, because the gum renders the crayon insoluble itself. But we do use acid, either before applying the gum, or mixed with the gum solution, and its function is to help the gum get a permanent hold on the stone. It does this, but we will not go into the chemistry of it now.

Another way--of my own invention, and entirely heretical--is to put gum solution on the drawing, and, while it is wet, pour on some turpentine. The turpentine dissolves the crayon at once and with water you wash it all away--turpentine, gum, crayon, and all. Now the stone shows nothing whatever. The printing spots, however, are all there, and when you pass the roller, ink goes down on every one of them, and the design perfectly reappears. And now the design looks just as it did before the wash out. So far as vision is concerned it is the same, but physically it is different, for now it is composed of black printer's ink instead of, as formerly, of black lithographic crayon. If the matter is handled in this way it is still necessary to apply acid and gum. This application of acid to the stone is called "etching" it, and the acid is called the etch.

I have already referred to the wide-spread but erroneous idea that the purpose of the etch was to eat away the whites of the design leaving the darks of the design in relief. Its purpose is to increase the power of the gum to keep the ink from spreading.

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Now as to the printing possibilities of our drawn, etched, and gummed stone. Senefelder and the early men in general, had the idea that in getting hold of lithography they had hold of a reproductive process that would yield very large numbers. Senefelder speaks of "several thousand" impressions; and somewhere a stone is referred to from which five thousand prints had been pulled. This theory is entirely false and its falseness led to important consequences in the history of the art. It is not true that a stone will go on yielding perfect proofs of a fine crayon drawing for any such numbers. With the best of watching and the most expert treatment, deterioration will be visible long before any question of thousands is reached.

It is true that a wide variation exists in this matter between one stone and another. This variation depends on a number of things. One of them is the fineness of the grain of the stone, which acts to shorten its printing life. The nature of the crayon employed as well as the manner of its employment--the style of the artist--also have their effect. In the etching the printer aims to etch and gum the stone in such a way that he can absolutely reproduce the appearance of the original drawing, and can continue to do so as long as possible. And of course everything that goes on in the printing affects it--the way the roller is used, the kind of ink, the temperature, the dampening, the paper used to print on, the

degree of pressure adopted--all influence the life of the stone.

Etching too little causes the stone to blacken; etching too much has the reverse effect--the prints are pale. The paleness is due to the loss of some of the minute granules--a loss which not only lightens the tint but also to some degree coarsens it also. A light etch yields to begin with some perfect proofs; but will not continue that perfection through an edition. On the other hand, a strong etch will yield a large edition, but they will be imperfect from the start. In the old days publishers wanted large numbers, and the printers, in their efforts to satisfy them, frequently injured the work by over etching it. And all the prints, from the very first one, showed this injury.

When I was printing my own designs I found it practicable to print even the most fantastically delicate work up to an edition of fifty without showing any change whatever. This number was my usual edition. A very few times, as an experiment, I have pulled a hundred or more, entirely perfect.

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In London, old Mr. Corneillissen, whose life-long experience of things lithographic runs well back toward the middle of the last century, talked to me about the great times of the art. He said that when a publisher had a fine drawing on stone, or perhaps a number of them to be issued as a portfolio, the custom was for the printer to take off on India paper a hundred of the finest possible proofs which, under the name of "artist's proofs", fetched a high price. Then a second hundred, also excellent, were taken, but priced somewhat lower. Finally eight hundred more were run off and put on the market. The stones were gummed down and laid away. Two or three years later, when the first thousand had been pretty well

sold, and had made a reputation for the work, the publisher slipped word to the printer to resurrect the old stones and pull another thousand. There you have the story--one or two hundred good prints, eighteen hundred bad ones.

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Historically, crayonstone was hatched rather by the printers and the publishers than by the artists. And what these craftsmen and business men had in their eye was much more something which would serve the same purposes as metal engraving, and do it cheaper, than it was "original" lithographs. In fact the idea which that term expresses to us was hardly afloat in any one's consciousness at that time. As a broad conception, it is true that lithography began its career as a "reproductive" process. The reproductions chiefly contemplated were largely those from painting. Nor did the advent of original work ever drive out reproductive work. In the general scheme of things it had a part to play and has played it all along. Therefore, in considering the technical basis of the world-wide art of crayonstone, I by no means exclude a consideration of its reproductive applications. To do so would be entirely irrational, because, whether you draw on a stone a reproduction of a painting, or draw from nature direct, or draw from your memories and imagination of nature, your problems are exactly the same so far as the technicalities of crayonstone are concerned.

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Before lithography existed people who had any prints at all had engravings. Some were in line; some were in tone. Many were from painted pictures. These had neither flat blacks nor flat whites; the tones of the light-scale were spread as greys of

varying depths over every part of the design. In theory, the scale ran from white to black; in practice it came a little short of this because commonly your lightest object was not white nor your darkest black. Even the sky usually showed gradations and the most brilliant cloud had its modelling.

When reproductive draughtsmen on stone went into competition with steel engraving, in the translation of paintings, they went into something which tested their skill and their process in the stiffest possible way. And their skill and their process stood the test--stood it, on the whole, rather brilliantly. That the publishers and printers showed up a good deal less brilliantly takes nothing from the showing of the draughtsmen or from what they demonstrated concerning the inherent possibilities of crayonstone. They brought to light, for the first time, these possibilities, and it was to them Senefelder had reference when he said that crayonstone was capable of "high perfection".

Naturally, the habits of eye and hand which had been formed by paintings and reproductions of them persisted when "original" work began to be produced. That is, the original work was largely conceived as a composition of tones, like a painting. A great deal of work which we class as original, by way of distinguishing it from reproductive work, was not from nature direct, or even imagination of nature, but from "sketches". These would often be made by artists and travellers with a view to their ultimate translation into lithographs, to their being "put on stone", as the expression was.

Not that putting such a translation on stone implied any intention to make a "reproduction" of the sketch--not in the least--the idea was merely to use the sketch as material to be dealt with.

I shall not here begin the discussion of any of this work

in detail, or so much as give the title of one of the various important and beautiful publications issued in the golden period. This book cannot be an encyclopedia nor can it take the place of the great libraries and museums where, if anywhere, the remaining examples of them--covered with dust--may repose. Besides, I long ago discovered, that words, in whatever number or quality, are quite helpless to convey visual images. And in the visual arts these are very nearly the whole thing.

Senefelder's mind was a blend of publisher's ideas and printer's ideas, trimmed around the edges with a few artist's ideas. From the start, he was obsessed by ideas about "ink work". He begins his remarks about crayonstone by saying that, "The fat of the chemical ink penetrates the stone in dry form as well as in fluid form. If the dry ink is cut in pieces, it can be used much like lead or black crayon". He points out that according as the stone is ground smooth or rough, so will be the character of the tints; also, that it has been "demonstrated by many successful productions" that crayonstone is capable of "high perfection". He gives several formulas for crayons--wax, shellac, menning, spermacetti, tallow, soap, and lampblack--and advises artists to use them all, because each produces a "different effect". Richardson's "Grammar of Lithography" credits the invention of lithographic crayon to Professor Mitterer, a drawing teacher of Munich. It does not matter, for our purposes, who invented them or who devised their sundry variations, for they are all so nearly alike that whatever I have to say of one will be true of all. I have made up and used so many of them that I know this. And if a new formula does crop up, I can tell by looking at it about what it would be like, for I suppose hardly anyone has

had so extensive and intimate an acquaintance with crayons as I. Hundreds of them, my own inventions, that draw vastly better than the old ones and print just as well. But, well as I know crayons, to tell what they are like in words is impossible. Quite as well I might try to describe how the bow and strings of a violin feel to the player. Yet the whole art of the violinist is conditioned by the feel of the things his nerves and muscles are dealing with. So is the whole art of the draughtsman conditioned by the feel of his crayon upon the surface he draws it over.

Just here I want to say--it is not history, but I want to say it--that my explorations into possible qualities of crayons and of surfaces have made it entirely clear to me that the things that men have done in this art are as nothing compared with the things that are possible to it, and even natural to it, if one has an open mind.

Certainly the old lithography, excellent as far as it went, stopped far short of its possibilities. Its range of surfaces was not a quarter of what it might have been, and its range of crayons was not a twentieth of what it might have been. And these limitations were entirely mental; there was nothing in the nature of the substances to justify them.

When men began to work on stone they naturally tried to produce a result that was in a familiar style, the style all round them and that had existed before lithography was born. This style had its roots in pencil work and crayon work. And when they had a stone so grained that when they drew on it with a lithographic crayon the result was more or less like the drawings they were accustomed to in other mediums, it ~~simple~~ simply never occurred to them to wish for any different surface to work on or any different crayon to work with. The taste of the moment had complete possession of all minds.

And to go outside this taste, to try to find out, regardless of the taste of the moment, what crayonstone really could do--no one did that. The publishers did not; it was not good business: the printers did not; it was not their part of the game: the artists did not; they did not possess the necessary plant.

However, my present purpose is not to lament over the things that the old fellows might have done; it is to point out, and with an intelligent and appreciative finger, the things they did do. They did a great deal, and a great deal of it they did superbly. The reason they did much was because the publishers could sell them; the reason they did well was because they were artists and got a lot of practice. In those days, before the existence of photography and mechanical reproductions, lithography almost had the entire field to itself. It was everywhere. Everybody--hacks, amateurs, and professionals,--drew on stone. At that time, making a lithograph was so every-day a matter that there could not be any idea of merit in the bald fact of a print being a "lithograph". If any merit was attributed to it it had to be because it was actually meritorious in its class. The case was not as it is in America now about etchings. If a print is an "etching" the public thinks the mere word guarantees some mystic merit, never dreaming that in truth the vast majority of the prints made today by the use of copper and acid are, artistically, worthless trash.

No, a hundred years ago one could not "acquire merit", as the orientals say, merely by the magic of the word "lithograph". The word had no such magic, and, as I said, to be ranked high, it had to be high--high among things of its own class. Denman Ross whose thought occurs to me as I write, says that the public might learn to distinguish excellence if its interest in one kind of thing

could be maintained for any length of time; and that in the past when the same thing was done year after year for decades, "just that and nothing else", it did learn to distinguish it. The works of art that have come down to us and which we admire were produced in long periods of time, by successive individuals, absorbed in doing one kind of thing.

Now for two score years--be the same more or less--this was pretty much what happened in lithography. They went on using, in understood and accepted ways, much the same stone, much the same crayon, "just that and nothing else", and inevitable they attained excellence--the excellence of the golden period.

Common drawing substances--chalk, graphite, charcoal, and the others--are produced by nature, just as they are; and their suitability for drawing, be it greater or less, is certainly an accident. The crayon of lithography, by contrast, is an artificial compound designed by man to meet specific conditions. A generic and very important difference between other drawing materials and the old lithographic crayon is that the latter is sticky. Stickiness impedes freedom and is a disadvantage, and I imagine the world would not have had to wait for me to invent non-sticky crayon if it had not been for certain erroneous ideas held by the printers. However, held they were and sticky the old crayon was--and, for that matter, still is.

Senefelder directs artists to make their dark shades with soft crayon. Off hand, one would think he probably was right. But when one is actually at work he discovers that the softer crayons are not merely softer; they are also stickier. Perhaps if you were drawing with charcoal it might be better to use the softer pieces for the darker shades; but when you try the softer crayons, expecting

them to act the same, they simply don't; they are too sticky--the softer ones naturally much more so than any others. And if you look into the matter historically, you see that the old lithographers did very little of their work with soft crayon.

The adhesiveness, which charactizes the old crayons--for though it is greatly more marked in the softer kinds it exists in all to some degree--this it is which has made the technique of lithographic drawing different from that of other drawings. In other drawings the absence of adhesiveness enables you to draw with a hand less tense than is demanded by the sticky crayons; and these differences inevitably affect the character of your work.

There is another way in which the character of the crayon affects crayonstone drawing. If one were drawing with charcoal he could go over and go into a passage again and again. This might get his mind into a mess, but the charcoal would not be in a mess. Whereas, doing the same thing with lithographic crayon does result in getting the crayon itself into a mess. This messiness in reworking comes from the sticky quality in the crayon. Each touch tends to catch more readily on a previous touch than on the stone itself. The first work, therefore, if one goes over it, does not remain as it was; its particles catch the newly applied crayon and gradually build themselves up into clots that were not on the program at all, that ruin the clean sparkling quality of the tint which is proper to the medium, and which cannot, by further work, be transformed into any new beauty. On the contrary, the more you work it the worse it gets. When Senefelder said that since all artists knew how to use crayon they have nothing new to learn in drawing on stone, he quite overlooked this fact--not to say some others. Of course I do not say, quite, that to go over a tint with

soft crayon more than once is totally impossible; I say it is annoying and unsatisfactory and the results are not good. That the crayon had the characteristics and limitations just described was quite unnecessary. The crayons themselves were simply a technical inheritance straight down from the earliest makers. Nobody invented better ones till I happened along and invented and used for years crayons with no adhesiveness at all. The formulas for a large number of them are published in my book, "Lithography for Artists". All the work George Bellows did after   was done with crayons I made for him. And the work he did with them was entirely new in lithography. My own lithographs illustrate this newness even more clearly, for I used a far greater variety of crayons than he did. With these non-sticky crayons the whole thing becomes something new--the New Lithography. However, as these formulas have been published only a comparatively short time and the crayons themselves are not manufactured or sold by any one for public consumption, the new lithography has, as Mark Twain would say, "its future all before it". The old crayons--whether by Senefelder, Lemercier, Korn, or any one else--are sticky. The new crayons are not.

That all the lithographs of the golden age of the art were made with the old crayons is proof enough, not that these crayons had all possible merits, but that they had ~~distinguishing~~ distinguished, even astonishing, merits. Whatever their limitations were, and whatever their powers were, the masters of those days understood both thoroughly. What they needed to know they knew so well, by practice, that at last they hardly knew that they knew it. Nature herself came to be seen in terms of their familiar and beautiful language

Senefelder says it would be well for the artist if he

would make up all of the eight kinds of crayon he mentions. He thinks that as each one produces a different grain which creates a particular effect, by using all of them one would "gain greater perfection", or, at any rate, "find execution easier than with only one crayon". He is quite right that each crayon yields a "particular effect". How could it be otherwise? If the crayons differ, necessarily so do their effects. He is not nearly so right however when he thinks "perfection" is to be had by multiplicity of crayons in one drawing. He does not really mean what an artist means by the word: he means completeness. If you wanted to put into a picture all that it is physically possible to put into it, you could come nearer to completing such a program with numbers of crayons than with one. But as it turns out, artists have not found it advantageous thus to diversify their crayons. I myself, that have ~~who has~~ made more kinds of crayon than there are leaves on the trees, in the great majority of my prints have used only one crayon, and in none more than two. The advantage to the artist of a great variety of crayons is not that he can crowd all of them into one design, but that he can create a variety of kinds of design--an entirely different thing. Senefelder was merely theorizing, just as I might theorize to the effect that a drawing would be more "perfect" if one drew certain parts with the silver point, other parts with lead pencil, the fuzziest parts with charcoal, and the blackest parts with Conté crayon. A drawing could be made that way, but no artist would use such a way. There is such a thing as harmony as well as completeness

In the same spirit of kindly advice, Senefelder suggests that artists use a stone with different grain on different parts of its surface. This is the same idea that we dealt with before in

the matter of various crayons, and the answer is the same. Only with the greatest restraint and on very rare occasions has it been done. Broadly speaking, the fine lithographs of the world have been done on surfaces that were the same all over. In my own work I never had the slightest impulse to use a diversified grain. In the face of the fact that it would be perfectly easy to do and that artists have not done it, we must infer that it is not desirable. It is again a question of harmony.

A stone can be given one grain as readily as another--as smooth as glass or as coarse as corn-on-the-cob. But in the history of lithography we do not find either of these extremes, hardly even a tendency to push out toward either of them. Draughtsmen accepted one sort of thing from the stone-grinder--the thing everybody was used to. On this they began by making, as near as might be, drawings like those they had been making in other materials. It is amazing to realize how slow the human animal is to realize a new thing as really new--even when, as in the present case, he is using it every day. The notion that a lithograph was an imitation of some other kind of drawing certainly dies hard. Even a man so usually sensible as Philip Gilbert Hamerton, writing as late as 1882, begins his chapter on lithography in "The Graphic Arts" with this lamentable sentence, "There are two principal divisions of lithography, one that imitates chalk drawings, another that imitates drawings in common ink." I hope that by this time the ghost of the learned but ungifted Hamerton has met up with the ghost of the gifted but unlearned George Bellows, and that George has explained to the gentlemen that, when he was drawing a portrait of Emma on stone, he was not making an imitation of anything; he was making a crayon drawing.

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I have said that other forms of drawing influenced the style adopted in drawing on stone. It is also true that there was a reverse influence; pencil and chalk showed the influence of the lithograph. Very often students were initiated into the use of these by being set to copy lithographs. Students in those days did not depend so much on charcoal; they used crayon and lead. They did not rely so much on art schools, but worked with individual artists. The artist was likely to begin by setting his pupils to copy some drawing of his own. This was before the birth of the modern prejudice against working from the flat. When the invention of lithography made it easy to reproduce drawings suitable for patterns, drawing teachers naturally began to use the stone for that purpose. Publishers saw the point and issued many of these lithographed copy books; in fact, the art stores will still sell you copy books got up on the same principle. Important artists, in the early days, such as Harding, Prout, and others, issued books of their own--prints from their drawings on stone. Thus came Prout's "Microcosm", and Harding's "Lessons on Trees".

I have already pointed out that before the lithographic age arrived, in place of lithographs people had engravings. Engravings, however, are not drawings; and so when the public exchanged engravings for drawings--for a drawing a lithograph is--they made a change of much cultural significance. Drawing is a more vital, versatile, sensitive form of art than engraving is. It brings the public nearer to the artist and the artist nearer to nature. Engraving is a good thing, in its way and in its field; but I should say that whoever knows engravings only, and not drawings, misses the best that black and white art has to give.

Even supposing the engraver to be a competent draughtsman,

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and adding to that the supposition that he is an artist; still, his very procedure makes it nearly impossible for him to draw. A man chiselling minute channels into a plate of metal, all day long, month after month, is surely not engaged in any act we can speak of as drawing.

And what makes lithography so important is just that it gives people, instead of engravings by engravers, drawings by artists. Because lithographic drawings are multiplied in the form of prints, and in a mechanical sense are prints, people mistakenly class them as a form of engravings which are also prints. This is entirely wrong, and remarkably stupid. Esthetically, culturally, visually, a lithograph is not an engraving; it is a drawing.

To sum up: although the old lithography kept itself within narrow and unnecessary limitations, the things it did inside of them were eminently admirable and beautifully intelligent. Enough of this finer work has survived the obliterations of time to demonstrate its unique artistic value. It is the only form of drawing in the world that prints genuinely autographic multiples of itself. The fact that the publishers and printers, between them, often mismanaged their end of the game--speaking from the standpoint of art--does not take away anything from the glory of the artists. For, as I have said before and am likely to be compelled to say many times again, the ART is, was then, and always must be, in the DRAWING--not the printing.

Today there exist so few of the fine old prints that people in general, having no opportunity to see them, do not know they exist. And when you mention the word lithograph to the average citizen,--yes, and to many who think they are some grades superior

to him,--the response is a vision of the cigarbox label or the Joe Pennell transfer.

PART III

MY TEN YEARS IN LITHOGRAPHY

It was in the winter of 1914-15 when, passing down Lexington Avenue in New York, I came upon an exhibition of lithographs by Albert Sterner in the gallery of the Berlin Photographic Company. As I now look back across the ~~eighteen years~~ eighteen years, it seems to me very likely that seeing those prints furnished just the last push needed to send me, in the spring, off to study lithography in London. Etchings I had made and printed from youth, but to this other art I was as yet a stranger.

Arriving in London I went at once to the reading room of the British Museum. I read every book in the catalogue, and also examined all their prints. This took a good deal of time, but it gave me--such as it was--a sort of mental background. Walking along the road to Number 16, Kingsway, intending to enroll in Professor Ernest Jackson's class in the County Council School at that address, there caught my eye, lying in a bookseller's window, a volume on lithography. It was the Pennell book, just issued. Conscious of my own supreme ignorance, I thought I had made a fortunate discovery and bought a copy.

In fresh and pleased possession of this treatise I emerged into the lithographic class. It was a mistake. At sight of it, upon some remark of mine, Professor Jackson glowered, "Joe Pennell knows nothing whatever about it," he promptly stated, "all he knows he learned standing by my press." This was the first piece of official information I received. Seeing myself getting off on the wrong foot, I hastened to observe that I knew very little about the gentleman and nothing at all about lithography. But even then something in the atmosphere warned me that a man with Pennell's book under his arm was a dubious person. Nevertheless, Professor Jackson went right along and did his duty by me as a student in

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his class.

He told me what lithographic crayon was made of, and also that the stones were etched with a three to five percent solution of nitric aced. He appointed me a place at a work table and directed the school's stone-grinder--for the students did not grain their own stones--to prepare a stone and put it on my desk. He sent me over to Corneillissen's, in Great Queen Street, for crayon. Then I began to work. The first exercise I set myself was to re-draw one of my little studies of the nude. Of this the school's printer pulled two or three proofs--for the students did not do their own printing. I made another figure drawing, fully modelled, and after that a landscape. By this time the summer vacation had arrived. This was the extent of my schooling in lithography--perhaps five or six afternoons in all.

On the top floor of a private house in Doughty Street I found a furnished flat. This I rented and adopting its principal room as a printery fetched into it stones and other materials, including a press, and tackled lithography. The professional stone-grinder that I had engaged to come and surface the stones failed to appear. I rolled up my sleeves and ground stones myself, all day long, for a week. At the end of that time I was a competent workman and have ever since done my own grinding.

The particular stones on which I learned my trade were a dozen yellow ones, bought at a bargain, second-hand, with pages of music still on them. I bought these yellow stones, in my ignorance, because the Pennell book said "artists liked them". The intensity of my greenness curdles me to think of, even now. On one stone I made a lovely drawing of a group of oak trees. Then came my first lesson in Pennellism, for the yellow stone was too soft to stand the

etch properly

etch properly--the drawing was ruined. I threw aside at once all of the twelve yellow stones and purchased grey ones. I got them from a small establishment on Vine Street. It being war time, the sole tenant of the head office was a red-headed young woman. She was competent, however, and the selected grey stones were duly laid down in my flat.

Then began my real study; it continued for one year. I lost a month in the middle of the winter with lumbago, but other than this I lost no time at all. I mean there was no time when I was not working. I lost plenty of time, of course, even when I was busiest, because I was so often doing foolish things, but I didn't know it.

Whether my method of studying lithography was the best in the world or the worst, I am not quite certain even yet. Perhaps in some ways it was the best, and in other ways the worst. I do not mean the worst in the sense of teaching me what was not true, but in making me pay a frightful price. What I was really doing--I can see it now--was trying to use all the ideas I had so innocently collected out of books, as well as many which I had picked up here and there as I went about among lithographically addicted people. Intense consciousness of my own ignorance made me listen, abjectly, to everybody and anybody. I was like one of those air-pump carpet sweepers; everything I came near got sucked in. The method seemed reasonable, at the time; perhaps it was so. But somehow, as the days slipped by, twelve and fifteen hours long, the unwelcome knowledge was gradually forced upon me that there are quite a good many people in the world who say things, and even write things, that are not so. It may be, however, only fair to the world at large, to admit that perhaps some parts of the ideas I thought I was gathering eluded me because of my being so ignorant. Gradually then, my

mind got itself unloaded of, and disentangled from, its undigested accumulations of second-hand gleanings, and I began to walk such a path as I could see by the light of my own lamp.

Some day a poet will arise who will sing, not the glory of a person called God, about whom we know nothing, but the glory of Things. My reference is not to man-made affairs but to those natural substances which reveal themselves to our senses. When I deal with these my feet stand flat upon the floor of the universe. Substances do not lie. And that is why I love to work with them, and why, if that style of phraseology meant anything to me, I should say that they seemed divine.

With a group of these things, then, I got on. If slowly, yet very surely, and with a satisfaction not to be put in words. Every book of the seven million in the British Museum might be wrong, but the stone itself was never wrong. If it failed me, it was, with perfect certainty, I myself that was wrong. To be right, what had to be changed was my idea--nothing else. The stone did not change at all; it never had changed; it was the same to me that it had been to Senefelder, to Lemercier, to Hullmandel, and to all the rest of them. There they lay--those three or four grey stones of mine, on my table--silent, dumb, cold.

Inasmuch as the texture of a drawing surface has a very important bearing on the drawing, I became profoundly studious of the grain on the stone. Equipped with a set of sieves that yielded graining sand of different sizes, I went on grinding and graining and testing with crayon--hours~~,~~ and whole days-many of them. Everything was recorded in writing. The notes of that winter fill several large volumes. Sand wears off a stone rather slowly and you need a lot of muscle to spin a fifty-six pound graining disc very long. What each grade of sand, and every mixture, would do, I learned--as also how long it

would take to do it. And always of course, the crayon tests, every texture at last perfectly understood. It was, as above said, because I saw so clearly the unescapable relation between texture and the size and subject of one's print that I went so deeply into this research. You cannot draw a life-sized gnat on burlap; a life sized cat you can.

Sometimes it seemed rather a tedious business, grinding down the surface of a stone with sand. The grains themselves would wear round, and the work go slower and slower. One day I happened to think of Carborundum powder, which is as hard as diamonds and sold in a long series of scientifically separated grades. Well, when I tried it I could only stand amazed at my previous imbecility. The texture it gave the stone was better than that given by sand, and you got it in just one twenty-sixth as much time. Now of course I had all my work to do over again--creating a series of textures, I mean, and testing each with the whole battery of crayons, from hardest to softest. I could write a hundred pages about this and not say a thing that was not of the keenest interest to me at the time. In my old note books I still read of forty distinct textures, with the exact furmula for producing each, and its character under crayon tests.

In my youth I consorted more or less with scientific people, and I have always read scientific books. So I knew how to try an experiment: I was scientist enough for that. Many persons suppose a gamble is an experiment, and others think an adventure is one. Both of these ideas are wrong: an experiment must prove something. True, there are in many experiments the adventurer's thrill and the gambler's hope, but these pass. What does not pass is the resultant knowledge; when you have put through a genuine experiment you know something you did not know before. Of course one could put in a

lifetime at it: the world is infinite and so is our ignorance. I gave a year to an attempt to reduce my own ignorance, and I never worked harder or more willingly.

Since one cannot experiment effectively unless conditions are right, my studio--or shop, whichever you please--was always in perfect order. Every morning when I stepped into the room it was an inspiration to see it so, to feel that I could jump in and do whatever I wanted to without,at every turn, being misled or tripped up by slovenly arrangements. And to get this inspired morning attack, I, each night, whether at nine o'clock or at twelve, cleaned the ink off the spatula and the steel scraper, washed them in turps and laid them, like twins in a bed, in the center of the ink slab. I wiped off the press, cleaned the inking stone with turpentine and polished it. I stacked the blotters, set the Carborundum cans in their serial order at the head of the ink slab, rinsed out the damping rag, threw away the dirty water, cleaned out the pail, destroyed waste paper, and to put a finish on the general situation, went to the floor on my hands and knees and scrubbed it clean with water and a large sponge. Every night, no matter how tired I was, this was my ritual. It was my way of praying for success tomorrow. Somewhere Thoreau speaks of wishing to drive a nail, not into the plaster where it had no hold, but into the solid studding, so that he could lie awake in the night and think about it with satisfaction. I understood his feeling perfectly; and, yielding to the impulse it inspired, carried on my affairs as here described.

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It was war time; I had very little money; I went to see if I could find a place in the war game. What I found was that

the English authorities had already on their lists the names of more than forty thousand willing Americans, whom they could not use. So I watched the soldiers train, in the streets and parks--thousands upon thousands, they were everywhere. And I just stuck to my work.

It was out of old Mr. Corneillissen, who sold me ink and things, that I got more real information than I got from any one else. He knew; he had been there. He liked to chat over the counter when he learned what I was doing. Sometimes I would take along a sheet of something I had printed and we would discuss it together. He gave me much first hand information that bore on the whole story of lithography in England from the beginning; it was a living tradition with him, much of which he saw and "a part of which he was".

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Far from my usual haunts, in a remote and inconspicuous alley, I ran across a sign. Down a dark, narrow hallway, in a gas-lit single room, I found two men engaged in making litho rollers. They were not super-salesmen for some giant corporation, just two men doing their work;that was all. The situation was one that I could understand: I liked the men. For really, I am a workman too. When we had gotten acquainted and I had explained my dissatisfactions with my roller, they understood and accepted my order for a better one. At my giving my address and name they looked surprised. One said, "Oh, we know you. Some theatrical ~~frineds~~ friends of ours from Chicago told us about you." Such is fame. I had not supposed that a ~~sould~~ soul in London knew I existed.

The roller made, I used it for a time. Then, grown still more critical, I went back and ordered another, which would be my third. They said, "It will cost you an extra shilling." I let

the order stand, despite the extra shilling. Not to be prolix about these rollers; in the course of the season they made--each time at a higher price--six rollers, one after the other, to my specifications, each better than the last. We evolved new ways of stitching the seam to keep it flat, and new sorts of stuff to put under the leather to make it evenly soft. I sat around, while they worked, and let them educate me by tales of rollers and inks and printers and the ideas of the printers about the rollers and the inks--a world in itself, a most interesting and important world, a world through which every lithograph ever made had passed, and been marked by, for better or worse.

I know now--I didn't then--that what I was trying to make a roller do it is impossible for it to do. However, in the effort to attain the impossible I certainly shoved up the mark of the possible some. I got a better roller out of those fellows, they said so themselves, than they had ever made before. In our last attack, all three of us, every restriction was laid aside. They conducted me to a huge stack of cow hides, tanned in France, marvellously, for just this use, and put through a machine that shaved the whole hide down to exactly one thickness. They asked me, "Which one?" and I said, "Take them all down. We want to pick out the best." Down they came, the whole pile--we handling them largely like tanners. A beauty appeared; I said it would do. On the floor, under the gas light, we crawled around over it on our hands and knees, feeling with our finger-tips for the most perfect part. Right in the middle of the hide we found it. "Cut a roller cover right there." said I. The sharp knife gleamed: I held in my hand a square of the finest leather Europe could produce. The roller-covers they use in heaven are

perfectly even: those we use on earth are as nearly so as we can get them.

I carried home that leather and next day, having laid it out on a true-surfaced stone, I sandpapered it and tested it with a steel that was accurate to the two-thousandth of an inch, till it was truly even--to the limit of that tool's knowledge. It occupied me five hours. But when two layers of specially chosen felt was put on the wooden body of the roller and this leather sewed over it--well, the day I went for it they smiled when I came in. One held out to me a cylindrical package and said, "For twenty-five years we have been making rollers for the best printers in England, but we never made as good a roller as this." "Why not?" I asked. "The Englishmen won't pay for it." was the reply.

For ten years I printed with it, and now that I print no more, I prize it--still perfect--as a trophy.

Naturally, going it blindly as I did, and with my instinct for beginning at the bottom, I fell into pitfalls, varied and numerous. There was one about the etching. I repeat, for saying it just once or twice would not express it,--I was green. I read in the Pennell book that etching a stone was a "most dangerous operation". It seemed natural, so right there I caught the Pennell disease; etching became a mental bugbear. At a lithographic supply house a man who was introduced to me as "an expert", told me a liquid sold as Arobene would enable me to print without any etch. Idiot lamb that I was, I let him sell me a bottle. I know now--I did not then--that though this preparation is suitable for commercial ink work--maps, etc.--it is not at all the thing for artistic crayon drawings. It does not etch; it petrifies. I made many lithographs by its use--those early silvery things of mine. I know now--I didn't then--

that nitric acid is better.

Senefelder speaks of a preparation of "phosphoric acid mixed with nut-galls" which he says makes a stone perfectly printable. Suspecting that "Arobene" was this very thing, I began to try to take Arobene apart--I mean, I tried to determine its ingredients and their proportions, so that I could know what I was really dealing with. Though not a chemist, I have human senses. Arobene had the consistency of gum arabic solution, which it undoubtedly was in part. It tasted like "Arnold's Writing Fluid", which is ink. I procured a bottle of ink and its action on the stone suggested Arobene. For two pence I bought an ounce of green vitriol. Putting this and an equal bulk of gallic acid in a vessel with a little water, in about no time I had ink. Adding gum, testing as I went, I got an article which, plus phosphoric acid, tasted, looked, and acted like Arobene. Now I could make it myself, much cheaper; and also I could vary it and thus learn the function of its separate ingredients. I could do anything I wanted to with it. Every step went on record in the notes. These show that the ideal proportions were arrived at after seventy-six experiments:

1/8 spoonful gallic acid crystals
96 drops dilute phosphoric acid
18 ~~spoonsful~~ spoonfuls gum arabic solution

According to the notes, after forty more experiments I reached a product that "Stands right alongside Arobene and beats it. It costs eighty cents a gallon, and not five dollars, as Arobene does". All this may seem like a silly waste of time; and yet, for me, I do not think it was wholly so. I was applying a principle--the principle of getting to the bottom of things. By going through 110 experiments I had duplicated a secret compound and learned what natural substances I was really dealing with. And all knowledge of natur-

al substances is clear gain. Secret preparations never did appeal to me: I want to lay my foundations on the raw ribs of the real world, as nature made it. Then I can build till I bump the clouds. And besides, this particular research almost certainly was the cause of my getting acquainted with phosphoric acid, a knowledge of which, all through my ten years as a lithographer, was of high importance to me. That is the beauty of research: you are always liable to turn up values that you never suspected had any existence.

Another trade preparation was an "ink doctor", a whitish salve that worked well enough, but what was it? The smell recalled nothing my nose ever knew before. When I was a baby I once took a bite of a cake of soap under the impression that it was a cooky. This ink doctor tasted like that cake of soap: I thought of it instantly. The window of a drug shop displayed cakes of an unknown substance stacked in piles. They handed me a piece: I knew its smell at once--the "ink doctor". The stuff was Japan wax. When I put some of this with some tallow and some soap there was the same ink doctor I had bought, only now I knew what I was doing and the cause of the effects that I got.

The days grew amazingly short: it was night all the time except for a small grey interval about noon. They put a whole galaxy of strong electric lights in the ceiling of my work room; it was like day. London, outside, eschewed all illumination on account of the Zeppelins. The authorities compelled each house to darken its windows, all over the city. The heavy blanket on my window got drawn aside a little so that from the street a small sliver of light showed. A policeman came, requesting the sliver be suppressed. It was. The streets were so dark that one night I walked squarely into a front-end collision with a cast iron pillar box. My luck

held, and I got off without serious injury. The policemen wore small red lights, hardly more than sparks, in their belts.

The pictorial material down along the river attracted me. I stood there one day, drawing, as is my habit, on my arm. Very civilly a Bobby drifted up and glanced at my paper. He murmured that the regulations would not allow it. Afterwards, from the War Office, or somewhere, I obtained an official permit to do things like that, but I never got around to use it.

Some of my experimental prints I carried over to the print room of the British Museum. When I sent in my card, to my surprise they knew me. And when they had looked at what I had brought they said nice encouraging things.

London, I discovered, is a great market for paper, and the number of paper merchants I visited would make a long list. They seemed to think I ought to know what I was looking for, and when I told them I was looking to see what the world yielded they stared a bit. The kinds of paper I discovered and experimented with were very numerous. I always was rather keen about paper, and these searchings were at once a fascination and a relaxation to me. What I brought home I classified and tabulated and tested--for color, for thickness, for texture, for sizing, for the way it took dampening, for the way it took ink, for the way it dried and flattened after having been printed on. I made the acquaintance of that paper-specialist, J. H. Head, at his store--this time a small one. Head lived on hand-made paper, ate it and drank it, even as in those days I did myself. We had heart to heart talks, each agreeing with the other quite delightfully. Prints that I showed him he was absolutely intelligent about; he saw what I was driving at. Showing him one, I asked him, "Have you good eyes?" "Very," he replied. He sold me

plate papers, sugar papers, blotting papers, filter papers, and some exquisite white hand-made rag paper with his name watermarked in it. He kept interested track of all my experiments. Once he remarked, "You're an expert; you can print on anything." He asked me to design an ideal paper for lithographs. This meant to make out the formula of the ingredients and their proportions. He intended to have one "engine" of it made, and it was to have my initials as its watermark. I have always wanted to make paper, but this was as close as I ever came to doing it. Nothing happened, because the government took over all the paper mills just then.

Clerking in that store there was a notably handsome youth--a beautiful human specimen. He had to go to the war. He said, "I wouldn't mind, only I'm the only one that's takin' care of my mother, and she's gettin' old. It's awful." Then, brightening up, he added, "But I'm goin' with a crack company." I don't know what became of him. Mr. Head went also. In Mesopotamia he was killed.

British men with only one leg began to be seen stumping along the street on a crutch. When I was buying some Carborundum at a hardware store, an officer came to the counter where they sold wire cutters. He did not look around at all, nor say a word; he just stood there and worked the nippers, studying their action. I could see him--at midnight, on his belly in a nudhole, cutting German wires, lives hanging on every second. In silence he selected the best wire cutters and carried them, his personal nippers, back to the great war.

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When prints came light, as phosphoric acid was sure to make them, though I didn't know it then, I thought more pressure would

make them come darker. So I increased it, screwing things tighter and tighter until the pinch was so great that to turn the handle demanded every ounce of my muscle, from the soles of my feet to the grip of my fingers. The very press itself used to skate around the floor as I surged. This sort of thing, taken together with waltzing a 56 pound grinder around and around--not to mention the stones themselves--so lamed and stiffened every muscle in my body that for six weeks I could hardly get my sleep at night; every few minutes I would be waked up by aches and forced to change my position. Once hardened to it, however, I came out in condition for a prize fight: weight down, hard as nails, feeling like a rubber ball.

But I learned, in time, that a printer need not be a prize-fighter; I used my brain more and my brawn less. The table of my press was fourteen inches wide, finding which too small for my expanding ambition, I sold it and bought a much larger one; also larger stones to go with it. I drew--it was about Christmas by this time--I drew the design with the line of poetry beneath it,. "Three Bathers" was its title, and it was on a stone grained very coarsely in an effort to get atmosphere, and what I always think of in my own mind as penetrability: an open texture lets the eye go into it, and even suggests going through it, hence a feeling of air and space--a thing which a landscape painter, dealing with a woodland scene, naturally values. Before I had time to print this stone I became perfectly helpless from lumbago. Two weeks in bed; two weeks creeping about; then back again on the works. I lost a month. Perhaps it gave me time to think.

There developed in the prints a tendency to streakiness--scraper marks, presumably. I know now--I didn't then--that owing to the design's being merely pickled in phosphoric acid instead of

being regularly etched, the ink did not have a normal adhesion, and hence the ease with which the scraper affected it in streaks. So from this bog I now set about experimenting my way out. At first I laid the trouble to the tympan, and for weeks the tympan was the center of my world. At last I abolished the old zinc tympan and replaced it with one of copper; a maker of presses whom I consulted told me to. I asked, "If copper tympans are the best, why do you not fit your presses with them when you put them out?" His reply was, "The Englishmen won't pay for them."

The disposition of the prints to come pale still continuing, I decided that the scraper was the probable cause. I went to a mill and had a new scraper block made. I suppose in time one would get used to the English, but at first some of their ways strike the practical American as almost funny. It seems they never can accept you as just a human being; they must know who you are, as they put it. When I was explaining to those mill people about the scraper I wanted one of them kept saying, "But who are You--who are you?" I finally said, "Well, in a large and strict way, I have never been able to find out, but for present purposes I am the man who wants this scraper stick. Can't we get down to business?" So, one man was set at it and I watched him and he made it and I carried it away--for a shilling. I did away with the scraper leather in favor of strips of plate paper faced with a ribbon of parchment. This worked, but it also opened the door to a whole new series of experiments on the scraper shoe. At one time I had a strip of sheet iron against the wood, with paper strips in front of it. It was all nonsense; I know it now--I didn't then. Anyway, I learned a lot: a man can be learning, even when he is acting foolishly.

In the absence of practical experience, my imagination had a way of substituting its fancies. One of these whimseys was that dampening the stone with a common sponge or cloth wears off the design. It doesn't--I know it now--I didn't then. I got busy and invented a roller like a pie crust roller, covered with soft cloth and then with fine wash leather. I bought and paid for and put together the materials of this device--a damping roller. It damped quite perfectly, of course, and I gloated over it for a time, but gradually drifted back to the ordinary usage.

There was another era when life centered round the question of the lubrication of the tympan. I tested all the greases in London, Then I worried over the backing board under the tympan and tried all the kinds I could think of, and the discovery which I finally made was that if you get your stone quite perfectly ground, perfectly placed, with a copper tympan and a flawless scraper, you can pull impressions without any backing at all.

A world of thought went into the study of the art of damping the printing paper. I learned; I learned thoroughly; but, Oh, the price I paid. Into a big tray of water on the table, one by one, I would lay sheets of Whatmans, pushing it down into the water and smoothing it out with my hands. Slow and tedious, even this; and this was but the beginning. Now, one by one, I took them out, laid each smoothly on blotting paper, laid another blotter over it, and then another sheet of Whatmans, and so continued to do till forty or fifty were thus stacked. The pile, between two drawing boards, was now put in a screw press and squeezed terrifically. It was then taken out and the sheets separated from the damp blotters and re-stacked, one by one with dry ones. This new pile was now returned to the screw press to remain--under severe pressure--till printed

upon the next day. I know now--I didn't then--that a heavily sized paper like Whatmans is not at all a suitable paper for my kind of printing.

Coloring paper, also, was a thing I went into for a while. By means of staining trays, sponges, and the bath tub, I got some exquisitely toned, or dyed, sheets. Tea, coffee, India ink, and various colored inks used by engineers, were my coloring materials. It was a lot of work, but the results were lovely.

When I carried some proofs over to the school and showed them to Professor Jackson, he said, "You can print." But he was puzzled, as well he might be, by the fact that the stones did not "go dark". One was a very small edition. "And then the stone went dark?" he asked. "No," said I, "it went light." "Well, it ought to have gone dark." he snapped. He did not know I had merely petrified it instead of etching it. I know it myself now a great deal better than I did then.

I mailed some proofs to a friend in New York. The customs house people would not believe they were prints; they declared they were drawn and not printed and must meet the law as drawings. They were quite stiff about it for a while, but in the end my friend got them convinced that they were wrong, and that the things were merely some extremely good lithographic prints from drawings on stone. The truth is that you can do marvellous things with phosphoric acid in the way of preserving the exact look of a drawing. The professional lithographers, to this day, have been unable to explain certain of my effects which are due to my intimate acquaintance with this acid. Even long after I was etching my stones in the usual way I never neglected to have by me a bottle of this, my most magical assistant. I never heard of any other printer who uses it as I do.

It is the most subtle thing in the world, if you have the patience to master it.

Occasionally I took a little time off and walked over to the British Museum Print Room with a print or two to show. I liked to go there, partly because it is such a storehouse of treasures and partly because the gentlemen in charge were always so courteous to me. I felt welcome, and if the officials there were not interested in what I was doing they acted as though they were: they encouraged me.

On the way to the Museum I used to go by parks and school-grounds full of young men learning to march and to shoot cannon. They took it in the most drab and matter-of-fact way. The only feeling I sensed in them was one of being considerably bored with it all. Of the traditional military hurrah-boys attitude, there was exactly none whatever. Speaking of things of war: I was in High Holborne Street; people farther down began to gather along the curb; I heard a drum--a single drum--beating march time. A quiet man on horseback appeared--an officer at the head of a body of troops. His horse was perfectly quiet, and he was. There was nothing slovenly or sleepy, but Oh! how quiet. You did not think of the man as an officer; he just seemed like a man, silent, on a horse that paced slowly up the middle of the street. And the people standing packed on the sidewalks--masses of them--were also as silent as the officer and his men. Not a word was spoken, anywhere; all you heard was the steady throb of the one drum and the sound of the feet of thousands of marching men, everyone of them carrying his full fighting equipment, every one as quiet as his leader; rank after rank, never slower, never faster.

So, thought I, so, England makes war. Then I knew that I too was English and that these were my blood brothers. And I loved the way they chose to go to war.

That was the winter in which England ceased to be an island. It was eleven at night; I had just gone to bed. Two miles away, down towards the river, a bomb exploded. I heard it, and my instant first thought was this about England being no longer an island. As I rose and stepped toward the window of the mansard roof a second explosion, nearer,--then a series, approaching, each louder and nearer than the last. The final crash was very near; with the bang of its detonation I heard the simultaneous smash of ten thousand panes of glass. Then, a mile up in the night sky, directly overhead, came the Zeppelin, silvery clear now, and bright like a fishes belly, from the many search lights that had found her. She had dropped her last bomb and passed off either among real mists or those of her own spreading, many guns shooting at her, shells howling up all over the city. But she floated too high. I saw the shell-bursts far short of her, mere harmless fireworks. My window commanded the whole display as if it were a show.

I dressed and went out. As I passed through the hall on the ground floor the janitor was standing on a chair tinkering at a gas jet. He paid no attention to me. When I returned he was still tinkering and still oblivious of anything unusual. It would have been beneath his dignity to show any interest in such a triviality as an air ship blowing holes in London. I rather like it: it seemed "so English".

I followed the line of the explosions,--several first class fires along it--down nearly to the river. Smashed glass coated the pavements in places half a foot thick. Thousands of people were out. I did not see a look of fear or of anger on one face. Nor one person moving faster than a walk. I entered a court, many-storied buildings on all sides roaring in flames, a bomb-hole in the middle big enough to drop an omnibus in. At first I was alone; then, from

the other side, a policeman approached. His eagle eye centered upon me. "Well, who are YOU?" he demanded. I said, "Nobody!" He let it go at that. Twenty persons were killed that night, one near our house, a school teacher; a chunk of iron was blown through her stomach; she sat down against a wall and so died.

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I began a series of etching experiments, using ordinary acid and the common methods. You can learn anything by experiments, if you know how to try them and if you stick to it long enough. Consequently, after a while I found myself able to etch a stone in the accepted professional manner. Indeed, I went this manner one better, for there is a considerable element of guesswork in that; whereas, when I got through I had the thing reduced to the cold certainty of a science. And from that day no stone of my handling has ever been spoiled or injured in the process of being etched.

When I had decided to return to New York, not knowing how readily I might be able to get together, in war time, another working equipment, I had all my stuff boxed and shipped to America, just as it was. It would weigh, all toll, about 1500 pounds. But the shipping agents weighed it--at any rate they claimed to have weighed it--and said there was fifteen tons of it, and I had to pay on that basis because my arrangements did not make it possible to stay and fight with them about it. They charged me a hundred and fifty dollars.

A day or two before I left my flat in Doughty Street, the postman brought me a personal note from the Keeper of the Prints at the Museum, expressing interest in my work and wishing me well; which was an appreciated courtesy to a man, who, after all, was a total stranger.

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During most of the summer of 1916 I rested. Rusticated, in fact, on an old ancestral farm up on Seneca Lake where I was raised.

At the opening of the winter season I lectured at Columbia University. A little later, as an indirect result of this, they installed me and a press (loaned by Mr. Louis Bechtold, President of the Senefelder Litho Stone Company) in the main exhibition gallery at Pratt Institute, in Brooklyn. I became an exhibit. The walls were covered with my prints. I arranged with John Sloan, George Bellows, Ernest Watson, Albert Sterner, and others, to appear here in public on stated evenings and make a drawing on stone, I meanwhile to be discoursing to the audience on the principle of the thing. On the following day, also before an audience, I etched and printed the drawings made the evening before. The newspapers reviewed the affair favorably. John Sloan's lithograph was an artistic success: I printed an edition for him. Sterner drew a nude, with a background intended for trees. Bellows evolved a memory of the "Men's Night Class", a chaotic scene--an old stove, easels, one youth consuming a sandwich, another guzzling something out of an upturned bottle, and, as center-piece, the nude female model, standing. When, as usual, I put this stone on view with the others, it so shocked the sensibilities of the Institute that some one took it from its place and turned it modestly to the wall. "I don't see what George wanted to go and do a thing like that for." said one. I called George up; he was surprised, but let the matter pass.

That winter I maintained a press, for public printing, at Mr. Bechtold's place, at 32 Greene Street. I called it The Artists' Press, and claimed that it was the smallest and best press in New York. The plant remained there, functioning at intervals, for several seasons.

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One day Arthur B. Davies came in. He was a pleasant man. The drawings he wanted me to print were on Zinc. I declined, on the grounds of ignorance. He rather insisted, however, saying he would take all the risks and, no matter what happened, I should be paid just the same. As I was charging a dollar a print and he wanted some hundreds I set to work and for the first and last time printed from zinc plates. Mr. Davies was satisfied with the impressions.

I issued a little card, or folder, encouraging artists to try lithography, and advertising my willingness to print for them. This was spoken of here and there and posted on sundry more or less artistic bulletin boards. Unknown to themselves, I selected half a dozen men whose drawings suggested lithographic possibilities, and visited them in their studios. One of them was Cesare, the cartoonist. He came down to my Green Street place and drew on stone a portrait of General Mitchell. As soon as he began to draw he remarked that the medium was the most delightful he had ever used in his life. The drawing he made was not published, because its author was dissatisfied with it as a portrait.

Other men, in the same way, were invited down, and came, one at a time, just to try their hands. One was Chauncey Ryder. He took hold rather seriously. He bought four stones and each summer took them with him to the country, where at his convenience, with a piece of my crayon, he made on each of them a landscape drawing. They were interesting drawings and they did exactly what he wanted them to do which was to give the qualities he had been getting habitually with a very soft lead pencil. But it merely went on in the purely leadpencilish way; he did not pass over into any new or more lithographic technique.

I recall the interview between Grueger, the illustrator,

and me, in his studio. I went there because his work showed that he could make good lithographs if he would. This I pointed out to him and he recognized it. We had an amicable chat. But his last question settled me. He said, "Well, suppose I did make lithographs. What would I do with them?" So I went away. Numbers of others I called on with similar intent, but for the most part seemed not to accomplish much.

You see, my thought in those days--I know better now--was that if a number of able men would draw on stone we could soon put up an exhibition of lithographs that would really be lithographs and that would knock the spots off anything the city had ever seen. We could interest the public, and if there wasn't any public we could create one. We could give the present generation, for the first time, a glimpse of the hitherto unsuspected possibilities of the art. It was a perfectly good scheme. But the other fellows didn't see it. I was a workman and I was an artist, but as a propogandist I fell short. Besides, though everybody was civil enough, both to me and to lithography, there was always an undercurrent driving against me. Etching had the field--commercially and psychologically. It was a flourishing industry. Nobody who was interested in any phase of it wanted the competition of lithography. One dealer told a friend of mine that he did not want the artists to start making lithographs because it was so easy that if they did the world would be swamped with lithographs. And then, to vast numbers of Americans the very name was against it; for to them its only associations were with commercial calendars and labels on cigar boxes.

Moreover, there were a good many people, even some artists, who thought, or pretended to think, that drawing on paper with greasy crayon was practicing lithography. The shadow of Pennell was broad

in the land. He had taught the people and they had sat at his feet. My insistence upon a lithography that was genuine went contrary to certain financial interests. People would be civil but they would not seriously push forward what I was trying to push forward. One of the largest dealers in the city told me himself, in so many words, that on account of having "money tied up in Pennells transfers they could not afford" to go against their business interests. The newspaper critics and Museum curators were caught in the same trap; they were committed. The twenty years of Pennell's hornblowing had paralyzed whatever faculties they originally may have possessed. They took the tone that my insistence on distinguishing sharply between drawing on stone and transferring from paper was just a personal whimsey--"You know how artists are." They would smile and, unasked, freely forgive my little aberration. "Two of a trade can never agree." laughed Miss Hutchinson, print curator at the Brooklyn Museum, when I was making my point against Pennell's transfer doctrine. And then, another friend, Dr. Weitenkampf, in charge of the prints at the New York Public Library, "Yes," he replied to me, "but in the gardens of the gods there are many flowers." "Quite so," I countered, "and for every one of them there is a name." Dr. Weitenkampf had been holding one of his educational exhibitions, a display arranged to show typical examples of all the print processes, and so I went on, "You do not jumble, in your collection, prints which are etchings and prints which are steel engravings, and yet these are printed in the same way, and the only connection between transfers and lithographs is that they are printed in the same way. Why this inconsistency? Here you put up a professedly educational show; all sorts of processes especially to teach the ignorant what the words etching, mezzotint, and lithograph really mean; and in place of a lithograph

by any one of the scores of masters who created and made deservedly famous the unique art of drawing on stone, you put up and label as "A Lithograph" a Joe Pennell transfer. And then you have the nerve to talk to me about the garden of the gods. The garden of the gods will be all right by me as soon as you give each flower its proper name."

There would seem to be two reasons why newspaper writers and curators took up with Pennell in this contention. One is that having once accepted him at his own valuation as a "Lithographer", (See Encyclopaedia Brittanica, 11th Edition) and Whistler as a "Master", and Fantain LaTour as a shining example, they would lose face if they did not stick to their original position. That they should learn something, and acknowledge it, would be quite too much to expect. A book I was just reading remarks, "The journalistic profession tends to make men oracular." And then again, if they were to try to speak of transfers as transfers and crayonstones as crayonstones, obviously they would have to have powers of observation great enough to enable them to tell one from the other. Where would a critic land who, in the presence of a steel engraving, criticised it as if it were an etching? They like to remember, and do their best to believe, Pennell's statement that whether a thing has been drawn on stone or on paper "no critic can tell the difference". I shall not go into this matter technically here; I have sufficiently handled elsewhere this preposterous and brazen lie.

The simple fact is that , if we accept lithography historically--and technically as well--in the same sense that Walter Sickert and the world formerly understood it, none of the three men just named was a lithographer at all. But curators, dealers, and art writers class their work as lithography. Precisely because they do so I have been compelled to coin a new word for the thing which

formerly the word lithography meant: I refer to the word Crayon-stone.

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It was as a painter that, back in 1912, the National Arts Club elected me a life member. In February, I think it was in 1924, the club invited me to install in its extensive galleries a comprehensive demonstration of lithography. The chairman of the Arts Committee was Harold Howland; he dealt with me and of course he knew nothing. He desired me to produce a lot of other fellows who should be a part of the show. "Well, who are the others?" he kept saying, "You aren't the only one." "Indeed," I replied, "I shall be extremely glad to meet the other artist-lithographers whenever they get here. I am really lonesome. Go out and dig up a few of these other fellows and we will have them in, too gladly." But he couldn't dig up one, and neither could I.

Therefore I hung the walls full of my own prints. A press also, in fact a complete printing plant, was included in my demonstration. It even included a printer, since I wore my work apron and functioned in that capacity throughout the month. The situation lent itself more to portraiture than to my usual landscapes, and I had the luck to induce several goodlooking ladies to sit as models while I drew them on the stone. Among these stands out the memory of the beautiful and gifted Russian, the Baroness Leja de Torinoff, escaped from the Bolsheviks barely with her life, while her people were, under her eyes, butchered in the streets. While the drawing was being made she told me about the old life she had lived in Russia: their estate included many villages, eight hundred peasants, and her set of dinner dishes was of pure gold.

On the walls of the Club gallery I posted a program, assigning certain evenings to certain groups of people. One evening was for the members of the Association of Lithographic Employers. These were the men who ran the big commercial houses; they "employ" the actual workmen who do the printing. When their evening came, a most interested and interesting group of them turned up. I gave a talk and, upon request, pulled a few prints in their presence. At once they wanted me to have a session of instruction to which they would send their chief printers to learn how these things were done. They spoke of a school at Woodstock, and when I told them I had no lodgings for such a body of men, they thought the men might be provided with tents. Well, it was a lovely thought! My woods and stream banks all full of printers in tents wanting me to teach them! But it was just a mirage; I let it pass.

I showed my group of employers how perfectly easy and sure it was if you only knew how. A little scrawly print lay on the stand. Holding it up, I offered it as an illustration of my statement. "At noon today," I said, "one of our typewriter girls came through this gallery on her way to lunch. Observing she was interested, I said, 'Come on. I'll show you how to make a lithograph if you care enough about it to omit your lunch!' She abandoned the lunch idea and at my direction placed a stone on the graining stand. I touched nothing. Step by step I simply gave her orders. 'Do this. Do that.' And she had presently grained the stone, dried it, sketched on it, etched and gummed it down, dried it, sluiced it off, washed out crayon, rolled up with ink, put stone on press, laid on paper, and pulled a print,--all inside of an hour." And there was the print itself to confirm my story--technically perfect. They looked at each other--those lithographic employers. Said one, "That isn't much like the way it goes with our men, is it?"

Another evening was given to the actual printers, the men the employers employed. This evening was totally different from any of the others. The reason was that every one of these men had been educated not through his ears by words but through his eyes and his muscles to an understanding of the very things that I also had been so enthusiastically studying. When we talked--and we talked a lot--each knew what the other meant, in terms of sense experience. Whereas, the talk of literary people is just words derived from other words. I cannot speak for my visitors, but for me that evening was a treat. One grizzled veteran of the roller, gazing meditatively on the prints about, observed, "Lithography always was a trick, and you have a super-trick." They talked with each other, quietly, and some produced from their vest pockets little folding microscopes through which they intently scrutinized the black granules that composed the tones of my lithographs. I did not ask them what they learned, but I judged they found each black speck doing its duty.

Another night was scheduled for the "art critics". Honestly desirous to being them into contact with some actualities that they would not ordinarily have the opportunity to see and, if it might be, to awaken in them a more intelligent interest in the powers and resources of the greatest of all the print processes, I wrote them personal notes, quite sincere and as courteous as I could. Not one of them put in an appearance or answered my invitation. I have a feeling when I consider art critics as a class and in a general way, that they do not want to know things,--they want to say things. And moreover, when a matter is open to demonstration and has been conclusively demonstrated, there is nothing further to be argued about; the gab-fest has been spoiled.

One afternoon there entered a man from China--a Chinese man. An American gentleman had him in tow, seemed to be showing

him our city, as it were. After some floating about the American came over to me and explained the superior brand of his Chinaman. I forget the details now. "And," said he, "he says he has seen a great many things in this country that have interested him, but the only one he has wanted to ~~carrh~~ carry back to China is that print of yours over there." It was the "Morning Sunshine" print and it was bought and taken to China.

There was a middle-aged lady who wanted her portrait done on stone. I agreed to do it and to give her six perfect proofs for a hundred and fifty dollars. While the event was in progress, and going well, the sister of my sitter appeared and began to look over my shoulder and make suggestions. I had drawn the lips slightly parted and this she assured me would not do at all: portraits never had their mouths open. Moreover, she assured me that she had known her sister all her life and therefore knew her very much better than I, and if I were wise I would listen to her advice.

A collector, old enough to have grey hair, looked about for a time and then spoke across the room to me, "You'll turn in your grave when you know what prices these will bring after you're dead."

When Mr. Pennell came in I welcomed him properly, but the handshake I got was pretty fishy. That was the time he told me he had discovered how the old masters had made their grand skies. He gloried in puncturing somebody's balloon, so now he was puncturing these over-rated old boys for my benefit. With ~~such~~ much positiveness and as gravely as though he expected me to believe him, he affirmed that they made their skies by rubbing them with a rag, and that he "could make one in five minutes". If Pennell had had the least glimmer of a sense of humor, what a different world he would have found himself in. Glancing along the walls as he shambled out he growled, "Well, I

haven't got up to that--or down to it."

For a month this affair at the Club afforded me employment, amusement, and even--as in the affair of the old master's skies--scraps of education. Fellow members, drifting through, made affable remarks and quoted for my encouragement the appreciative things they had heard somebody say. On the whole I enjoyed it. True, I did an extremely small amount of business. I did get fifty dollars for a proof of "Moonlight Bathers". But as I have never been a business man my luck in this direction neither surprised nor unduly depressed me.

Probably it was as a result of this demonstration that the firm of Knoedler and Co., then on Fifth Avenue, invited me to give a show in their galleries. They told me they learned that in lithography I was the top man. The exhibition was duly hung, constituting my third one-man show, the first having been given in the Ehrich Gallery. In the matter of the Knoedler display it was Mr. Collins whom I personally dealt with. Everything went as smoothly as possible. We had a stand in the center of the gallery with a grained stone on it and a piece of crayon attached thereto by a string so anyone could try his hand. At Mr. Collin's request I was present most of the time. I did not want to be and warned him that I was worse than worthless in such a capacity, but as he thought otherwise I yielded and kept myself more or less in evidence. We sold a few--not many. We got forty dollars for a copy of "Summer Night" and thirty for one of "The Picnic". This latter was the first sale of a print by my New Process (for which, see "Lithography for Artists"). It is the print which appears in reproduction on the jacket of this volume. One critic found fault and took me seriously to task about some of the new process effects. "Why," he growled, "you have no right to

do this. This sort of thing belongs to the etchers. You're stealing it."

Miss Elizabeth Luther Carey gave us the once over, and printed so cool a review of us that some considered it prejudiced. Miss Carey is a Whistlerite, and Whistler is a "great lithographer"--on paper. When the President of the Architectural League looked at the portrait studies he said, "I never saw it better done." The President of the Heywood Lithographic Company spoke most appreciatively, and he was the man who paid forty dollars for the "Summer Night".

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At one time there was talk to the effect that the Society of Painter-Gravers was to open a club house, and on the top floor were to be etching presses and lithographic presses and I was the man that was to go with them. But it was just another mirage. Various organizations had me before the public to lecture and demonstrate. I think I lectured twice at Columbia University. Once I gave a talk at Princeton. At the Milwaukee Art Museum I made and printed a crayon-stone lithograph before the audience. In a number of other cases I did the same thing. It became a routine with me. The Philadelphia Print Club put me on for an evening. The response was excellent but the audience was so small that it hardly existed. When I sat down, the President of the Club asked Albert Sterner to take the floor. He said he did not see that I had left him anything to say, but by way of filling up the gap he stepped to a group of old-time lithographs which I had put on a screen there and condemned them in bulk. They were not his style, of course. They were not in the style of anybody today, but they were very excellent things in their own style,

nevertheless. Albert assured us, however, that they were "perfectly worthless". Strange--how all the idiots lived just before *We* came along.

At Montclair, N. J., I gave a similar lecture and demonstration,--audience packed and keenly attentive. A press had been trucked out from New York for the occasion. Two hours before it was time to begin I made the discovery that the handle had not come with the press. Over the phone we got one started from the city and just as I had a crowbar arranged to do its work it arrived. This press and its haulage were the free voluntary contributions to the cause by the President of the Senefelder Litho Stone Company, Mr. Louis Bechtold, a gentleman who has all along understood what I was trying to do and has steadily backed me up in it.

At one time I had almost launched Charles Platt, the architect, upon lithographic seas, he being, with brush and pencil, quite as much artist as architect. I bought him a beautiful grey stone and sent it, surfaced by me, to his studio. He made on it a drawing of a French village, and then brought it over to Sterner's press at which I happened to be working. While I was preparing it to be printed, Mr. Platt and Sterner stood beside me, talking and joking with each other and with me. Habitually doing my work in solitude, this social hobnobbing distracted me a little. I unconsciously omitted one of the steps in my operation and thereby ruined the drawing. Only once beside this time did such an accident happen to me, or, to speak more accurately, did I commit such a blunder. I was preparing to print a stone of Glenn Newell's--a drawing of cattle--and he was present. A box of talcum powder and a box of pulverized castile soap stood at hand and I picked up the wrong box. Yes, in dealing with many hundreds of stones, during a period of ten years, I

ruined two of them.

Other men beside Platt also ordered stones and received them. Benda, the illustrator, was one of them. I know there were others but I cannot recall definitely, and it makes no difference anyway. Besides getting the artists to buy stones I had another way, which was to loan stones of my own, ready surfaced. I invented a carrying case which should obviate the necessity of nailing the stone up in a box and also had the advantage that it would bring the stone back with the drawing on it in perfect safety. Mr. Bechtold lent me a workman whom I taught to grain a stone, thus relieving me of this heavy labor. Mr. ~~M~~Bechtold came to understand exactly what kind of stones I wanted for my artists, and their sizes, and why.

Another idea my brain evolved was that of simply hiring an artist, for a lump sum, to make me a drawing on a stone, just as a magazine publisher hires him to make a drawing on paper. I would then print the drawing (just as the publisher does) and sell the prints to the best advantage I could. With my skill in printing and my judgment of quality in drawing, this scheme seemed to have distinct possibilities: it only required money, commercial sense, and a little luck. The project did not look so bad, even as business, but the main fascination of it to my mind was the thought of the splendid body of work which I might thus be instrumental in bringing into the world. If I could choose my men, furnish each with exactly his affinity in the way of surface, crayon, and subject,--well, we would certainly do things the like of which had never been done before. We would show that the possibilities of this method, when fully understood and used, are vastly greater than has ever been dreamed of.

My public lectures and demonstrations were continually going on. It would be tedious to try to recall and recite them all. My

vanity, however, is gratified to reflect that in not one of them did I fail, or boggle at, what I set out to do. One or two more of these public affairs come into my memory as I write. One was at the Detroit Museum of Art where I faced an audience packed to the doors. Another was at Chicago,--it was in the days when my old friend George W. Eggers was Director of the Art Institute. I demonstrated in Fullerton Hall. What comes back to me about it is the very graceful introductory remarks of the Director: he has a gift that way. And one other thing: I pulled the stone and table it rested on clean off the press; they landed on the floor of the stage with a startling crash. We had them back, however, in a moment, none the worse. This happened because I was using an unfamiliar press, not fitted, as most are, with a catch which automatically stops the table from running off this way.

At places where there was no press available I lectured, as one might say, out of my head. I did this at the Brooklyn Museum, and when I had finished, Miss Hutchinson, the Curator, was kind enough to say that the talk was so clear that a press would have been superfluous. In a similar way I spoke at a dinner of the Architectural League, also at a gathering of the Association of Women Painters, at the Ethical Culture School, the Salmagundi Club, the Pen and Brush Club. I gave a course of three lectures at the school of the National Academy.

The Graphic Arts Society invited me to address them in the auditorium at Art Center,--Mr. Pennell to be present and to speak in rebuttal. I gave my talk. When Pennell's turn came he began by saying that he found it necessary to "undertake the education of Bolton Brown". Going on then to demolish me, he quoted, and being himself he quoted so inaccurately that the audience called out, "NO, NO!"

I suppose the Committee's general idea had been to get Pennell and me tangled up in a personal set to, just to see what would happen. But I never could see much sense in squabbling--in this silly personal way--about matters of art. And besides I was not dealing with a matter of art--that is, of esthetics, matters of taste--but with objective facts, open to demonstration and by me and a hundred others conclusively demonstrated. So, why squabble, and, above all, why squabble with a Pennell. I merely let him talk. If he was under the impression that I might be educated I was under no similar illusion with regard to him.

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The reader will now please to detach his mind from those more public parts of my story, already given. For, synchronously with that, there ran a parallel story of a more personal sort, this for the most part at Woodstock, N. Y. It was here that in the off parts of the New York season I spent my time and did my private work. As a public character down in the city I was having an interesting time and no doubt doing useful missionary work, but financially I was not so good. Expenses, all along, were with only difficulty kept below the intake. Nevertheless, by the timely assistance of a friend--never to be forgotten--and some heavy mortgaging, I had managed to acquire a lovely old farm and homestead near Woodstock. I even, in a few years, paid off the mortgage. I began by setting up the press I had brought from London in the corner of the barn and I worked there a year. My original and biological family having broken up and my children in a school in New York, I hired a housekeeper. We had twelve chickens, twenty six maple trees for maple sugar, three large pines for the wind to hum through, a stream

with wooded banks, a garden, an orchard, a well, a bicycle, and a cow.

With a scythe I mowed grass and made half-a-ton of hay which the cow pronounced unusually delicious. A neighbor harvested the app apples on shares; there was an enormous bin full of them in the cellar. A rat kept gnawing them for a while, but finally I got him in a trap. There was a barrel of cider down there too. But there was a definite scarcity of money. I sold the timber in the woods for eight hundred dollars, which all went on the mortgage. We ate eggs and garden truck, and in the fall we ate the hens--all but one and she froze to death. Labor was not to be had; I sawed wood for three fires all that winter. This was in 1817-18. The war was still on. I bought a barrel of flour in Kingston for fifteen dollars. The cow gave us milk, and for the rest we lived on butternuts, cider, bread, apples, potato soup, and apple pie.

It was the coldest winter ever known. If the thermometer rose to zero we called it a warm spell. Snow two and three feet deep buried the world. From early December till late February the temperatures ranged from around zero to twenty and even thirty below. However, my life and experiences would make a book by themselves, and for that reason they shall be left out of this one, which is devoted to other objects.

I began to suspect that there wer undeveloped possibilities in the matter of making lithographic crayon. Experiment quickly confirmed my suspicion. With three or four waxes and some soaps and leys and things I made and tested crayon after crayon--dozens, scores, and finally hundreds of them. It was a true and most fascinating voyage of discovery. In the back of my head, stored there from much practice in early life, lay ideals of marks made by lead pencils.

And I had Korn's and Lemercier's lithographic crayon--by this time known by me very intimately--to measure my own by. In the end I made much better crayons than the world ever saw before. I visited Mr. Korn in person, thinking he might use some of my formulas and market the crayons and thus get them out into the world. He might have had the formulas for nothing. It was not money I was after. But he shook his head. Mr. Bechtold's comment, when I told him of this interview, was that Mr. Korn was too old to do anything new.

The best commercial crayon, by quite a margin, that I have ever seen was brought to my attention by Walter Lang of the Fuchs and Lang Manufacturing Company. "Currier's" it is called, and Mr. Lang said it derived from one of the original Currier and Ives firm. It was no longer on the market. Mr Lang's firm had acquired the formulas and at one time made the crayon though they did so no longer. On a top shelf a few remaining boxes were found. He said he had made it himself, years before. Mr. Lang bought a superb proof of my "Three Bathers" with the poetry below, and I bought all his remaining boxes of Currier crayon.

A letter arrived at Woodstock bearing the post mark of Philadelphia. It came from Thornton Oakley, illustrator and admirer of Joe Pennell. The letter told of attempts to get good transfers from his drawings at the hands of the Philadelphia printers. The drawings were not on the regular "transfer"paper, with its coated surface, but just plain paper. Would I be willing to make some transfers and prints for him? My letter to him stated that I did not do transferring, was not interested in it, claimed no experience at it. And yet, I added, if he were actually at my door with drawings in his hand, I would probably not set the dog on him. Three days later he entered my front gate, with drawings in his hand. I lis-

tened sympathetically to his painful tale, examined the transfer prints done for him in Philadelphia, and at drawings which he wished me to transfer and print from. He engaged a room at Mrs. Lynch's--next house up the road--and stuck around a day or two. In the end I agreed to do the best I could. I made, in his presence, one transfer and pulled some impressions. Mr. Oakley was more than satisfied. We bargained that I go on and print in the same way an edition from each of a series of drawings he had been making. These were much on the Pennell order,--I mean as to subjects,--steel derricks, acres of scaffolding, lots of frames sticking up in the air and chain cables in catenary curves. And I hand it to this gentleman in the matter of those curves and cables. He had an eye like Muirhead Bone's, and a hand that could do the work of a T square without any T square. It is a gift, that sort of thing. John Taylor Arms is another man that has it.

Which reminds me that the said Arms--a delightful man--a good friend of mine, and these many years the President of the Brooklyn Society of Etchers, once came and stayed two weeks in my house with me and learned to make lithographs. In the natural intervals of our activities with stone we used to sit on the front steps or across the road under the giant pine trees, sometimes far into the night, and carry on long conversations. When he had grasped the mechanisms of lithography he went away and set up a place of his own somewhere over in Connecticut, whence I presently received a note saying he had just spent an entire forenoon trying to grain a stone without scratching it. This man's mental background was that of an architect, and his notion of drawing is something the architects call "rendering". And, as I have already implied, nature having given him the most remarkable eye and hand in the world, he

could "render" amazingly. I seem to remember that, aside from instructing him, I printed editions of two or three of his architectural drawings. The memory of the appearance of his notebook, in which he wrote wisdom as it fell from my lips, also comes back; the writing looked, literally, as if it had been carefully engraved. Sometimes he made me want to roll him downstairs and tell him to make a drawing on the way down.

One day when I was at the gallery of the Brown Robertson Company (at that time my agents) we came upon a proof of George Bellow's, "Edith Cavell". It gave rise to some comment among us in the course of which I learned that the Brown Robertson people were dissatisfied with the printing of Bellow's lithographs, as also with the general style of their get up. They said they wished I was printing for him. "Well, go and fix it up." I said, "I am perfectly willing." Over the phone they arranged that I should be at Bellow's studio, down on Nineteenth Street, at four o'clock. I was there: prints under my ~~are~~ arm; George, of course, his usual frank and genial self. He was new to me then; I thought he had beautiful eyes. Having looked at my prints, he said, "I have the best proof puller in the American Lithographic Company, and I can't get what you get right along." I asked, "What is the matter? Can't you get what you put on the stone?" "No, that's just what we can't." Then we examined some of his prints: they seemed pathetic; they also seemed puzzling; I couldn't make out how they 'got that way'. Textures of extraordinary coarseness and black marks quite without autographic quality, not even suggesting lithographic crayon, left me guessing. I asked George how they were made and he told me. What he said amounted to this: the printer forced him to use a much coarser stone than he wanted, claiming that otherwise the drawing would not print well.

The coarse stone made it hard to get darks and almost impossible to get blacks, and George was especially keen on blacks. "So," he said, "what we do is to put the drawing on the press without the full etch; it prints darker and darker and when it gets as dark as these you see, we etch it and print the rest that way." Technically stated, they were simply ruining the stone by "spreading" the printing granules, and when the ruin reached a certain stage, they fixed it there and printed from it. George said he did not like them but what could he do? "Let me print for you." I answered. I also assured him that the notion that you could not print successfully from a finely grained stone was all nonsense, at the same time putting before him prints of my own that proved it. I asked him to choose one of my prints that showed textures and darks that he would like to get. He did so. I then said that I could give him exactly that texture and exactly that crayon, and he could use both at his own sweet will,--with the responsibility for reproducing in the print anything he put on the stone resting on me. "I wish you had printed my 'Edith Cavell'." he remarked.

We finally got down to the business end. My price of a dollar a print caused him to give a few financial gasps; but he recovered and agreed on a trial. I grained a stone, gave him a piece of my crayon, and he drew a very rich design, "Gramercy Park". I printed him fifty flawless proofs of it, receiving his check for fifty well-earned dollars. From this time, I grained all his stones, made him exactly the crayons he asked for, and printed precisely what he drew. "Looks like a million dollars!" he used to say when the proofs began to come.

Bellows owned a complete printing plant, so when I printed for him all the things I used belonged to him, except my famous roller.

Albert Sterner's studio likewise contained a printing plant. Sterner showed me prints made for him by a professional printer. He was dissatisfied with them and engaged me to come for a week and print.

My first move was to make him throw away his yellow stones and get grey ones. The week passed very well, Sterner drawing while I grained stones, furnished crayons, and pulled prints. He spoke enthusiastically of the quality of the impressions I handed him. And yet he did not take in the fact that physical and chemical laws are impersonal and entirely rigid, and that my success was because I accepted this and constantly adapted my operations to them with all the nicety I could. Behind my back he told Bellows, who repeated it to me with a chuckle, "It's all right to be fussy, but Brown is too damned fussy." However, we had a good time. Sterner can draw. For that reason, if for no other, I enjoyed printing his designs. If he had worked on stone long enough he would have achieved a genuine lithographic expression. But as it was, his drawings were rather in the spirit of charcoal work than of lithographic crayon. What he saw in his mind's eye, before he went to work, was a charcoal effect, and this he did his best to realize and he came out with rather handsome things, of their kind. As a draughtsman, charcoal was his real medium. I am no thinking of his portraits, when I say this, fine as they are, but of certain free studies of draped figures. There was a moment once when, standing before one of these, I said to myself, "That is the best charcoal drawing I ever saw in my life." Sterner said he wanted to come up to Woodstock and stay four months and "wallow in lithography", but he never did.

Bellows came to Woodstock; bought, built, and established

a permanent country home there. When the Carpentier-Dempsey prize fight was put on, one of the newspapers engaged George to be present and to make sketches of the event. George did, and as a result had notes and ideas for another prize-fight lithograph. This lithograph he drew in the summer, at my place. I fixed him a table and a stone by a north window in the woodshed, and every day he drove over and worked a while on his design. When it had been etched and printed--operations performed in his absence--and he came over and saw a proof, he said, "That's just the way I wanted it to look." By this time we had worked so much together that each knew precisely what his part was and how to play it. We made a gorgeous team. George's prints are real lithographs, not mere variations from some other material. Not that they resemble the early sort of lithograph, done with the sticky commercial crayons and in the convention of 1830. What I mean is that he worked on stone with an instinctive appreciation of exactly its own nature, and used the new crayons with a joy that was an actual avidity. The literary critics do not know it, naturally, but the work I printed for George Bellows constitutes an entirely new chapter in lithography; nothing like it was ever done before, nor could have been, for none of his forerunners had the same materials. Of course I had them myself, and used them, and my work is something new in lithography just as much as his is. As works of art, however, they occupy different fields. As an artist, my aims and my background are so totally different from those of Bellows that they do not overlap at all. The world was plenty wide enough for both of us and both of us knew it. And just as I appreciated his work, so he appreciated mine. When I showed him my "Sunrise", he looked hard at it, then sweeping his hand across the cloudy part, said, "That's the finest lithographic sky I ever saw." And I can

return the compliment. He made a portrait sketch of one of his daughters that is the finest thing of its kind I ever saw. I seem to remember printing some of the impressions of it with an ink of a slightly golden tone, and I rather think the New York Public Library possesses one of them.

Then there was   , the etcher. In New York, my contact with him was. By agreement I gave him, and his wife, and his wife's sister, an entire day of myself and of the run of my plant at 32 Green Street for a flat sum of twenty dollars. Each of these people made a drawing with my crayon on a stone I had grained for them. I pulled a proof of   drawing and he liked it. Later on he wanted an edition pulled from it. But he tried to stipulate that they should not be signed by me. To sign the prints I pulled was my invariable custom. The workman is worthy of his hire, and that the man who pulls a fine impression should get the credit of pulling it is perfectly right. I therefore declined to forego my right to authenticate my own work by my own signature. We were talking over the phone at the time. "Very well," he said, "I will buy the stone of you. How much is it worth?" "The stone is not for sale." I answered. "But my drawing is on it, and it is mine, and I want it." "Your drawing was taken in hand by me and so treated, chemically and physically, that it is now--and I made it so--a printing surface. You want to take it away from me and hand it to some printer who will pull you prints on the basis of my graining, etching, and preparing, to say nothing of the crayon. You want it to appear with only your own name upon it, as though you had done the whole thing." "That's just exactly what I want." he said. "Well, it can't be done." was my closing remark. In the end, however, we compromised. I agreed to be satisfied merely to pencil my monogram inconspicuously

on the prints. So I printed what he wanted and signed them that way.

Hugh Ferriss, charming man, was also one of my clients. I fixed stones and crayons and started him off. His profession is that of rendering architects' drawings, and he does it unusually well. I printed several editions for him. I tried to induce him to go in seriously and learn to do it all himself, just as I had done. I did not succeed.

There was a Brooklyn school teacher, Miss Anna Frost by name, at whose request I purchased for her and had set up in her Brooklyn home a complete printing plant, gave her a course of instruction in the technicalities of crayonstone production, and the last I knew she was making lithographs and printing them just as well as anybody.

From Austin, Texas, came a lady to Woodstock, to learn lithography. She took lodgings at Mrs. Lynch's and studied in my shop for weeks. Miss Mary Bonner, this was. She also makes etchings. When she went away I bought and had shipped to her in Texas a press and outfit complete. She has been making lithographs successfully ever since. Miss Bonner being a public spirited person and very appreciative of my prints, bought a number for the express purpose of presenting them to the Metropolitan Museum, which she did. She reported the Curator of the Prints there, Mr. Ivins, as greatly pleased and as saying how he had long been wanting them but had not bought because I had "rubbed his fur the wrong way". Which very likely I had. There is a good deal of fur in this country that, lithographically speaking, needs to be rubbed the other way.

Speaking of the Metropolitan, in connection with litho-

graphy, they were opening a new room or wing or something, and Ivins had hung it full of what purported to be an exhibition--obviously historical in theiry--of lithographs. Now the Museum, if you ask for one as you enter, will appoint you an attendant who, for a dollar an hour, goes with you and instructs you concerning the things you look at. I thought it would be nice to be thus officially instructed about this collection of lithographs. So I asked the lady at the desk for one of their advertised attendants. Naturally I did not give my name. However, without any given or imaginable excuse the lady began to side step. Instead of at once producing the party she hemmed and hawed and ~~rabled~~ rambled about in words and finally assured me that Mr. Ivins was in the building and would appear at any moment and take care of me, etc. etc. To cut it short, the Museum actually refused to give me an attendant: they did not formally do it in words but they did it in action. Presently, just as the lady had said, along came Mr. Ivins. They must have telephoned him. He escorted me into the show and told me general truths about it. Then he began at one corner with "The first lithograph ever made", and was about to follow the chronology of the thing along the wall, explaining as he went, when I steered the interview into a new channel. I said, "Here in this glass case you have a group of highly colored pictures. They are not examples of lithography, not even chromo lithography. Those colors are all simply washes of water color put on by hand. You can see it yourself." Why they were there I do not know to this day, but I know their presence was an element in helping to mis-educate the public about lithography. There was another glass case full of designs by Daumier. They were not lithographs at all, but prints from reliefs, just like type. When I called attention to this fact, Mr.

Ivins merely remarked that, "They were commonly referred to as lithographs." He was very keen about Daumier. Of one of his unimportant things--a horribly bad print from a ruined stone--he said, "Do you see that? Well, that is the greatest lithograph ever made." "Ah, how interesting." "Yes, there it is, the greatest lithograph ever made. And do you know why?" "Indeed, to be frank, I can't say I do." "This is the reason. Here is the dark, coming so, against the light; and here is the light, coming so, against the dark; and that gives you an enormous sense of space. And a sense of space is the greatest quality in art." "Really? You surprise me. I had thought that art's concern was more with forms occupying space, but maybe I'm wrong."

Sitting in the library of the National Arts Club that evening, I wrote an "Open Letter to Mr. Ivins", a criticism of the exhibition. Every one of the five newspapers to which it was sent printed it in full; some gave it special headlines. The main point of the letter was that the show was ridiculously inadequate in range, omitting whole regions of thought and effort in which innumerable fine prints had been made. Particularly was this the case as to landscapes, which were left out entirely, notwithstanding the world of beautiful drawing which has been achieved in such work. In short, what was really exhibited was not at all a resumé of the art, but merely an expression of the personal proclivities of the person who had made the selection.

Not only do I owe to an officer of the Metropolitan Museum of Art the authoratative statement that space is the greatest quality in art, but also, the equally interesting statement that a bad print is just as good as a good one. Mr. Ivins told me so himself. It was, he thought, a mere affectation to pretend to like

a perfect impression better than any old rag, printed long after the design had become but a barely visible wreck of itself--a thing the draughtsman who made it would have repudiated with horror. He informed a friend of mine, as an evidence of my incapacity for the higher things of art, how I had "gloated" over "texture" and "quality". A last kindness the Museum, in the person of its curator, bestowed upon me was a rebuke for mishandling some of the Museum's prints I was looking at--said rebuke being accompanied by an amused snicker from his female attendant.

Soon after returning from England I visited my friend who has charge of the print collections of the New York Public Library and who has written a book on "How to Look at Prints", Dr. Frank Weitenkampf. He showed his appreciation of the prints I brought to him by purchasing fifty dollars worth. His first words, when he learned that I had entered this field, were, "Ah, going in for lithography? Better see Joe Pennell at once." I said, "Why?" and am waiting for the answer yet. I mention this to show how completely Pennell had subjugated the American mind. At the close of my lecture before the Print Club in Philadelphia, a gentleman in the audience remarked, "Well, it's good to hear some one who doesn't think Joe Pennell is God."

I went round to Nelson, editor of the International Studio. This was in the old John ~~Land~~ Lane days, when the Studio was an art magazine. Over his office desk hung a proof of Sterner's, "Death of Pierrault", sentimental, but a good drawing. He said Sterner had given it to him. Alas, I never gave an editor anything in my life, nor an art critic, even though advised that it would be a good thing to do. Wait. I am wrong. There was a case; a young woman, friend of another, whom I knew. "What you need is publicity." observed the

latter. Urged by her I permitted her to give one of my prints to the former lady who was then "writing art" for the Evening Telegram, I think. That is the extent to which, in thirty years, my "bribery of the press" has extended. No wonder Jordan am a hard to travel.

Speaking of editors, James B. Townsend,----but first I should finish what I was saying about Mr. Nelson. He opened "Who's Who" on his desk, and read me up, when I first came in. Then he was all interest in my product and my aims. He asked for an article, which I furnished and he printed, together with reproductions of two of my lithographs. Of Pennell, the Old-Man-of-the-Sea of lithography, he wanted me to write an expose, even suggesting its title, "Pennellism versus Lithography". He would not even allow that I had any option in the matter, said it was my "duty". Before I got around to write it Nelson ~~dies.~~ died. I did not find his successor, Eddington, interested in my interests.

Time passed, some years of it. The Studio, with green cover, passed into Hearst's flock of moneymakers. Peyton Boswell edited it. The size was enlarged; the cover became as flamboyant as the resources of science could make it; the contents mainly advertisements; the articles,--well, the less said the better. Boswell, sounded on the subject of the article Nelson had suggested, accepted the idea, mentioned his rates of pay, and ordered the article. Having written the first draft, before working it into final shape, I sent it to him to find out whether he would dare print it. It was pronounced acceptable. Still the draft did not come back to be finished. Over the phone once or twice excuses were made. When six months had passed I went round to the office and retrieved it. I never asked for any explanation. I perceived that my boat had run upon another of those sunken snags that do not show on the surface; somebody had "money tied up" somewhere.

Seeing Mr. Boswell sitting in the window of the Club one day and having some prints with me, I walked up and put before him some examples of New Process crayonstones, explaining their character as I did so. "Why yes, anybody can see that," he said. He and I picked out four which he printed, a full page to each, in the new International Studio, with a description below, which he asked me to write.

My friend the genial James B. Townsend was editing the "Art News". He always had a leaning toward me--found me perhaps liable to exhude acceptable copy. He saw my prints and asked, "Has Joe Pennell see these?" I told him he had not. "Well, he'll yawp over them." he observed.

When the Ehrich Gallery was holding an exhibition of my things I printed a few ideas about lithography in the preface to the catalogue. For reasons unknown to me then, and still so, Mr. Royal Courtissoz, writing of the affair in the New York Tribune, expressed disapproval of my doing this. He also stated, out of whole cloth, that "Mr. Brown is a pupil of Whistler and Fantain LaTour." I wrote to the Tribune that there was no truth whatever in this statement, and the Tribune printed it. Since when, as John Taylor Arms remarked of the incident, "they deal out oblivion". At this exhibition Mr. Kennedy, of Kennedy and Company, print dealers, bought some pieces for his private collection. Perhaps these were the very first prints of mine that did sell. Later on, Mr. Wells also, head of the print department of Knoedler and Company, bought for his personal portfolio a copy of "Sunrise".

Thornton Oakley, representing the Philadelphia Art Alliance, wanted me to give a demonstration at one of their meetings. "Very well, my price is so-and-so." He replied, mentioning the exact sum which "was in the treasury", somewhat less than my figure. I agreed, though none too cordially.

Then I was desired to come a day--or was it two?--ahead, and run about the city hunting a press and whatever else would be needed. This seemed a bit thick. My reluctance annoyed Mr. Oakley: he sent me a telegram the wording of which was in effect like this, "Wire acceptance at once or you are dropped". A waste basket stood handy.

People in Philadelphia have now for some years been holding exhibitions which they announce as exhibitions of lithography. At the first of these they wrote to me frankly asking ~~me~~ my help to discover suitable prints. I could not be of much use but gladly and promptly gave them what information I possessed. At the same time I advised them to avoid confusing transfers with true lithographs, and offered the suggestion that, if they exhibited both, it would be well to divide them into separate groups. On the first occasion when I sent lithographs to one of these Philadelphia shows, the prints I selected were two, "Lake Ladies", and "Swiss Glen". Both were refused. The Jury of Selection consisted of Albert Sterner and Joseph Pennell. Naturally, since then I do not send. A relatively recent circular having brought these Philadelphia exhibitions again to my attention, I wrote, in the civilest words I could think of, and asked them to tell me just what, by their ruling, was the definition of a lithograph. There was no reply.

Of print displays in general the most interesting to me were those for a time held as part of the regular exhibitions of the National Academy. I have understood that Mr. Pennell was more or less responsible for inducing the Academy to condescend to show things like these along with those more important and more gummy productions commonly referred to in Mr. Townsend's paper as "oils". If he did I take off my hat to him for a good deed done. A compliment fell to me, at one of these displays, which certainly ought to have rubbed my fur the right way. The critic who was writing up the affair for one of the

principal papers began what purported to be a general account of the whole thing by the simple statement that, "The lithograph of Bolton Brown was worth all the rest of the exhibition put together". The print referred to was "Nymphs of the Night", of which, for some reason now forgotten, only two or three proofs were pulled. Yet and for all--as Mrs. Lynch would say--it did not sell. However, another one did. Also at the Architectural League I sold a copy of the "Reclining Nude". And at Washington, D.C. several were bought by the Library of Congress. In Washington too, the   gallery held a one man exhibition for me. In the government report mentioning this I was mentioned as being the leading lithographer in America. At another time, the Arts Club, of the same city, gave me an exhibition, and also the honor at a Club Dinner. I declined this courtesy, and my reason, though I did not confess it to them, was just a native dislike to being personally conspicuous, ~~and~~ I am not at all the sort of person that can add anything to the pleasure of others on stately and festive occasions.

It was somewhere about that period of my affairs, if affairs can have periods, that my Alma Mater, Syracuse University, from which I graduated a third of a century before, offered me, and conferred upon my not particularly literary head, an honorary degree. I am consulting the parchment diploma now, as I write, to determine its date. The thing is all in Latin, but I manage to translate XVIII KALENDAS IVLIAS as the 17th of July, and MCMXX as 1920. The name of the degree is LITTERARUM DOCTOR ARTIUM. And again, and for the same reason as on another occasion already mentioned, I begged to be excused from being honor guest at an offered dinner. I know that this tendency of mine to keep my private self out of the limelight is bad for business, but then, I have no hope of ever being a business man. "Art," says Denman Ross, "is the most delightful occupation in the world and the meanest business." Exactly so.

At Art Centre, in New York, Alon Bement, the Manager, gave me the whole central gallery for two weeks. We tried to add interest by announcing talks by me. Audiences assembled. I talked. Business was bad. Among the prints hung a lithographic portrait of me by Ernest Watson, made at the time of the Pratt Institute affair. A collector bought it. There is another impression of it at the N. Y. Central Library. This sketch is, in my judgment, not only the best extant portrait of me, but it is also a sound and charming bit of lithography. Mr. Watson, at that same time, made two or three other drawings on stone, which I printed. But I could never get him to go into it beyond this tentative stage. He could do well if he would. Like my friend George Eggers, he is among those who have been eaten alive by the public. I mean that their lives and talents have not been spent upon the fine things nature gave them the power to create, but in "directing" museums and "instructing" girls and boys how to arrange hair tonic advertisements in fetching ways. They have their reward. They eat regularly - but, O My!

The Brooklyn Museum has the finest group of my prints publicly owned in this country. They were presented to it by Mr. A. Augustus Healy, President of the Board of Trustees, friend of Whistler, and lover of art. When I returned from England, pockets empty, I put my painting "Girl and Turtle" in a cab and took it down to Mr. Healy's business office. Being a gentleman himself, he naturally used me as if I were one. We had a pleasant visit. He bought my picture and presented it to his Museum. We further arranged a deal whereby in return for certain financial backing, he was to receive prints. All these are now the property of the Museum. The most extensive collection of the lithographs I have made is in London, at the Print Room of the British Museum.

Aside from all the talking I was doing in those days, every

little while I was writing for some paper or magazine. I could not now give any serious account of these articles. Many of them I have not kept and others have certainly gone out of my mind. For some of them I received amounts of money visible to the naked eye, for others smaller sums, and now and then I wrote for nothing. Numbers of these screeds were printed in technical publications, hardly known to exist by the general reader.

The Century Magazine (?) made a full page reproduction of my print entitled "The Pine Bough", accompanying it with a little poem. I offered to write the poem, but they thought they had a better poet. Maybe they had. They gave me thirty dollars and returned the original print in good condition.

Mr. FitzRoy Carrington, formerly with the firm of Frederick Keppel and Company and one time Curator of the Prints at the Boston Museum, had for a time a print gallery of his own on the Avenue in New York. He liked my work and put on an exhibition of it. At my request, Mr. Carrington omitted the glass commonly placed over framed prints. My theory that a picture on a wall ought never to have a glass in front of it was a thousand times proved. When you looked at one of these unglazed lithographs you saw the print, as the artist created it, and not a maddening kaleidoscope of scraps of print all mixed up with scraps of reflections of windows and people walking around. I was never so pleased with my works and confirmed in my faith in them as I was at that show. They looked, as Bellows says, "just the way I wanted them to look". And Mr. Ivins came to see them--very commendably. One of the ladies who writes those things for the New York Times--I think it was the Times--having written some of the usual filler, finished with the cryptic remark that "Mr. Brown is so interested in technique that maybe he is in danger of forgetting art".

Mr Carrington understood my relation to the art of litho-

graphy. Together, He and I went over the stock of lithographs which he, as a dealer, had collected in Europe. We discussed them. He had a volume of very good impressions by Givarni. I was just as sure then as I am now that Givarni was a genius in the use of lithographic crayon on grained stone. By practice, it became as natural to him as swimming is to a dolphin. I bought this volume, as a speculation, and some months later, at a good profit, sold it. It is now in one of the western museums. Mr. Carrington invited me to write an essay for him which he should issue in book form. I wrote it--for fifty dollars. It came out beautifully printed in a limited edition by the Merrymount Press. It has been out of print for years and sells at a premium.

This little treatise, which was not written in the technical jargon of the shop nor in the still less intelligible jargon of the art critics, was well received by the newspapers. Miss Carey, in the Times, even went so far as to say, if my memory is right, something to the effect that it was a "model" of what such an essay should be. I notice that when a matter has been put into words, these literary people get on better with it: it is the visual matters that stump them.

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At the beginning of my adventurings in lithography, over in England, I made a rule for myself that there should be a written record of my every act. It was one of the wisest things I ever did. The rule has been strictly followed. If it had not my affairs would now be forty times as bad off as they are. Keenly realizing all the difficulties that a beginner must overcome, knowing that these same difficulties lay in the path of every newcomer, I began a manuscript intended to help such other students as might advance along the same path. This, re-written again and again, year after year, as I went

on, finally became my book, "Lithography for Artists". My idea was--and I still believe it sound--that if I waited till I was complete master, before writing, it might easily be that when that time came many of my early struggles would have sunk out of memory, so that if I tried to write for beginners I should not do it so well, not because of any lack of understanding the craft, but because I had partly forgotten how it felt to be a beginner. As a beginner myself the problems of the beginner were intensely interesting to me, but this intensity might not unnaturally pass away as I grew out of the state of being a beginner. To try to go back, when once I had gone on, and feel and think as a beginner, instead of being intensely interesting, might even be something of a bore. It was because I foresaw this possibility that I started the book so early. And it is because the book was thus built up, little by little, year after year, from the strictly personal experiences of an artist who was an artist before he was a lithographer--for when I was fifty years of age I had never seen a lithographic stone--yet who as a lithographer began at the bottom and built up solidly therefrom, that the book is unique, for unique it is.

I would have been glad to publish it earlier, and that by some years, but I had not myself the money to put into it, and obviously any public it could hope for would be far too small to make it a profitable venture for a publisher. I knew that without putting any publisher to the trouble of telling it to me. Some friend at the Club introduced me, in this connection, to the members of the John Day Company. These gentlemen sat around in chairs, counselling with me, while I explained the book. They were disposed to print it, thought perhaps they could include it in a series being done for the Graphic Arts Society. But in the end, the decision was against it. The Association of Lithographic Employers really ought to have printed it,

and I think some of them thought so too. I took the matter to Mitchell Kennerly. Mr. Kennerly simply said that he appreciated the value of the work and that if his hands were not financially tied up at the moment he would write a contract, then and there, to publish it.

The name "John Lane, at the Bodley Head", had been one of my mental properties ever since I could remember, just as the name Sebastian Cabot and Hendrick Hudson had been. To me, they were all, and equally, historic characters, and I no more expected to meet personally one than another of them. Yet I did. There is, or was then, a real and living John Lane. He was a member of the National Arts Club. Some one pointed him out to ~~be~~ me,--a white-haired, smallish gentleman, English and reticent. Finding myself and him alone in the library one afternoon, I made boldto tackle him. I tackled him as a publisher of art books. Very briefly I told him of my manuscript. He listened, but was distinctly noncommittal. He said he wanted to see some of my lithographs,--wise man! As soon as the open portfolio lay before him his attitude changed. This was, quite evidently, not just another book by an amateur telling other amateurs how to be amateurs too. At once he expressed a willingness to look at the manuscript. This being as promptly laid on the table, when he had read a few sentences he recognized it for what it was. Yes, he would publish it, in London. He remarked something to the effect that over there a firm would sometimes print a book without expecting to make money on it, just as a credit to the house. We reached a "gentleman's agreement" that he would not aske me for any money, and I should not expect any from him until expenses had been covered and profits began, after which, we would see about it.

This seemed to settle the matter and I considered my book was as good as published, and by just the logical house, John Lane in London. However, it seems that in London it is not John Lane the man

that functions, but the John Lane Company. With this company the final decision lay. And they decided against it. They wrote me that they had had the manuscript read by two of the best lithographers in England, both of whom reported well of it. The reason they declined it was, they said, because they judged it to be "more of a professional treatise than a book suited to amateurs". And that was that.

George Eggers, who had studied with me at Woodstock (and we had a lovely time) being a Museum Director and member of the Association of Museum Directors, was willing to bring the matter of publishing it before that body, with the suggestion that the Museums, acting together, should stand the expense of getting it printed. This, however, remained but an idea. Meanwhile, I went out Mt. Vernon way to the new plant of the Rudge Printing Company. William Rudge, its head, showed me over this superb establishment, gave me an excellent lunch, heard sympathetically my words about the book, and said, "All right. We'll print it." So I left the manuscript and once more considered the matter settled. Time passed. A letter finally arrived. Their specialists had computed the exact cost of manufacturing such a book and found it to be twenty-five hundred dollars--a larger amount than they cared to put into such a risk. Their computations were for a very handsome get up, arranged by Bruce Rogers, with ten reproductions. The retail price was to be ten dollars. But, as I say, they backed out. And that was that again.

I next went to Mr. Weyhe whose bookstore is at Lexington Avenue in New York. He sat and read in the manuscript quite a while. He approved of it. But he would not himself go to the expense expressed in the Rudge estimate. What he did was to issue a very swell circular, advertising it as about to be issued in full glory, by Rudge. Subscribers sent in their orders to the number of about sixty. Mr. Weyhe said that number would not justify him in ordering Rudge to go ahead.

More time passed. Somebody must have put a flea in the ear of the Art Instutute in Chicago. One day a letter from Mr. Harshe, its director, arrived. He asked about calling on me at Woodstock when he sould be ~~dring~~ driving through the next week. It was arranged and presently this gentleman and his son drove into my maple-shaded door yard. We sat on the front porch, talking and looking at prints and at the manuscript of the book.

It was, he said, his wish to have one series of the Scammon Lectures devoted to lithography and he wanted me to be the man that gave that series. ~~It~~ I was reluctant, because, as I pointed out, I had not enough to say, to a general audience, to occupy the six hours of the Scammon Lectures. He steadily overrode me on that point, and in the end a tentative agreement was reached that I was to give the lectures. Something was said about printing my book instead of, as usual, printing the lectures. The fee for the six lectures was eight hundred dollars, but the course was so spaced out that I should have to live in Chicago three weeks, and also travel two thousand miles.

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The story I have been telling sounds as though I had spent a great deal more time being a public character than I really did. By far the greater part of my energy, interest, and time was used in the further study and constant practice of the art of crayonstone, in my own studio at Woodstock. The more I drew on stone the better I liked it and the better I drew.

I remodelled the house; put a window ten feet wide in half the second floor, securing thereby a superbly lighted workroom. My plant in it lacked nothing. In that room I made crayons, damped paper, grained stones, drew, and printed. It was there that I took my post-graduate course, if I may be allowed to consider the year in London as

an undergraduate course. In this room were long carried on the experiments that resulted in the New Process, described in my book, but until its publication held secret by me. It used to amuse me to hear people try to guess how the prints I made by it were done. Not one of them ever got near it. This is the process which Albert Sterner considers "at least doubles the value of the art of lithography". Its exact value I do not know any way to measure, but I do know that it is something definitely new added to the resources of the artist. Neither in the prints of the past nor in any book is there a trace of anything of the sort.

As to crayons, I made them all day long when I was awake and all night long in my dreams. It was a madness while it lasted. I am made that way. A lifetime so spent would not do at all, but a few weeks of it occasionally,--weeks when nothing in the world counts but the thing you are pursuing,--these are likely to yield values that remain long after the fury of the hunt has given place to ordinary sanity.

The greater part of these crayon experiments were made with crude, little, home-made weighing scales, thrown together out of what happened to be at hand,--a whittled stick two feet long, teetering over an edge at right angles to it, was my balance. A set of weights was some chunks of wax which a druggist weighed out for me. The full tale of these crayon hunts--objectively and subjectively--would make a large volume. And if it were printed there would be in the whole world about thirteen persons who would care to read it.

My housekeeper went away and got married. My children went away and got married. I became a hermit. It is not a good life, but it had in my case some advantages. It left me completely free of any household arrangements other than those related to my work. I could

eat when I pleased, go to bed when I pleased, get up when I pleased. In summer the best working time is the cool of the morning. There were periods when I used to rise, morning after morning, at three o'clock, just about as early as you can see. When I had been at work for what seemed half a day, the clock would say eight, and the neighbors would just begin to stir and pass the house. I had a garden about as big as a postage stamp. Every morning I pulled a few leaves of lettuce, fresh, the dew still cold upon it. An egg, a cup of coffee, and a few little things like that, eaten while the sun lifted itself from behind the hills on the other side of the Hudson. Such was breakfast. Plus the singing of the birds. Birds do their serious singing very early. Regular concerts they have, but by the time most people get around they have largely quieted down.

For a while I had a cat, the most beautiful cat I ever saw,--a light, tiger-striped grey. She went by the name of The Silver Kitty. She would follow me on long walks: she would talk to me when I spoke to her: she would ride on my shoulder when I tramped in the rough woods: and, being placed upon a tree trunk with a knothole far aloft, would regularly scramble up to that hole and explore in it with smelling nose and feeling paw, though she never found anything, and then she would wiggle down again, backwards, and ride on till we came to another tree with a knothole in it.

After the days of The Silver Kitty, a chipmunk made friends with me. He lived under the front porch. I used to toss bits to him from the window. Gradually he got so he would come up on the windowsill to be fed, and then over on the table where he would scoot around and eat all the crumbs. Sometimes he would come on my knee and eat out of my hand.

One day a Mr.   and two other men drove into the yard. From New York they had driven up to see my plant and methods.

I began to explain a few abc's to Mr.   , but, barely in time, paused to inquire if he happened to have any knowledge of lithography. "Well," he smiled, "I've made my living at it for forty years." That was the kind of company I liked. Incidentally, though he did not come for that purpose, he bought several prints and arranged to have others when I had made them. Those prints are still on the walls of his office, as examples.

One summer my carpenters built a new studio, very fine, at the rear of the house; cement floor, north light, everything a lithographic heart could hunger for. The following season people wanted me to "have a class". I did. Five men, two weeks solid, all day long, at a hundred and fifty dollars apiece. We had a wonderful time "wallowing in lithography". Alfred Hutty, the etcher, was one of the group. He would begin to compile a liquid mixture (everything went by measure with us). "Yes, about six drops." he would say. "What did I hear you say?" I would ask. "About six drops." "Man, get it out of your head. There isn't any such thing. Six is either six, or it is not. There's no 'about' to it." "My wife ways you are good for me." he laughed. He sat out in the field one day and drew a lithograph on stone while the rain poured down in rivers, using one of my waterproof crayons.

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My impulse to be an artist was never, even from childhood, mixed up with any impulse to be a traveller, a reporter, or an illustrator. By merely using my eyes I could see, all round me, endless matter of artistic interest. My desire was to express this interest by drawing and painting. Why should I wander when scenes so rich, and so dear and familiar, lay at my door? The structure of the earth, in broken banks and bedded rocks, fascinated me. I was never weary of following it with my pencil. The trees,-just common trees that grow

everywhere,-the forms taken by different kinds, the way the foliage lies in this kind and in that, and the way the light plays on them and in them and through them,--these were my interests. And for some reason, probably because nature is never twice alike, I never grew weary of them. Light and color were everywhere. I was immersed in them as a fish is in water. I did not need to go far to study them.

I am in love with the objective world. I am intensely interested in what I see in it and in what I feel about it. George Inness said that there was no natural object that was not beautiful. I know what he meant. He meant that anything was beautiful if you could direct your attention in such a way that you seemed to see beauty in it. I put the word "seemed" in because, at bottom, beauty is a question of what one seems to see, or feel rather. It exists in the soul, in its way of seeing, not at all in the thing itself. The cow sees the same tree that I do, but I do not think she feels the same about it. You cannot detect it in her conduct.

Well, having this attitude, and finding my world was the south east corner of the Catskills, I accepted that world and made lithographs out of the material it furnished. Early one summer morning there was a great commotion among the hens. It brought me out before day. I saw a marvellous sky. From it grew my lithograph, "Cloudy Dawn". I say it grew because years elapsed between the seeing that sky and the creation of the design. Half a mile up the road stands a small grove of hickories. I put them on stone. Half a mile down the stream in front of the house a "willow grows aslant a brook". Trundling a stone down there on the wheelbarrow, I drew the cloud of silver green upon it. Nothing is easier than to work outdoors upon stone. Another morning I wheeled a stone down on the flats along the creek and there drew the print entitled "Two Maples". As I say, there was material everywhere. All I had to do was to go out and use it.

Just around the bend in the road stand the antique and rustic barns of Bertha Bogert. Numbers of excellent subjects they have furnished me.

I ~~dod~~ did not always go out armed with a hundred pound stone on a wheelbarrow, searching for something to draw. Indeed probably I never did. I walked around in my natural state and found my subject, first. Nor did I always, by any means, draw direct from nature upon the stone. To speak accurately, it was only now and then that I proceeded in that way. More usually I drew on paper a preliminary design extracted out of the material before me, or out of the impressions and impulses which the material before me gave rise to, and adapted to the proportions and size of the rectangle which should be the boundary of the intended print. Cogitating upon this, afterwards, in the studio, I decided what grain on the stone would be best for it, and which crayon would come nearest to the effect I had in mind. I then grained a stone accordingly and laid out on it the picture rectangle. Inside of this space I traced a few principal lines. When ready for actual drawing with the crayon, I sometimes wheeled the stone back to the natural scene and drew in its presence. Other times I created the final thing entirely in the studio. I happen to be a versatile worker and therefore have operated in a wide variety of ways.

My life has been entirely too short. I know dozens of ways of work that are actual mines of unexplored possibilities, but I have been able to do in each just enough to uncover the clear fact of its existence. Many of these ways are much more suited to the tastes and talents of other men than they are to mine. In my thought, while I am discovering and exploring one of these styles, I see imaginatively what superb things this or that artist whom I know could make in it, how magnificently he would exploit and extend its possibilities, and his own at the same time.

It is a fact, without going into the reason why, that a large

part of my study of lithography has been motivated by something akin to the explorer's passion, by a feeling that I was discovering paths which other men would some day travel in, travel to achievements suitable to their several characters. And there has been no mistake on my part. The paths are there. I have set guideposts to them in my book and given examples of them in my own work.

This was what was in the back of my head when, as previously narrated, I was going around in New York from studio to studio, literally a missionary. I never wanted anybody just to do my kind of lithography. I wanted him to do his own kind, and what I wanted to make him see, and mostly didn't, was that the resources of the art were vastly richer and more adaptable to all kinds of aims and all kinds of talent than he had any idea of. Think of the things George Bellows might have done! Yes, and he did them. Think of the things Albert Sterner might have done. And he doesn't do them. Think of the things a man like Muirhead Bone might do! I was thinking of him once when he was in this country. I sent him a seductive note. His reply was courteous and friendly, but I did not entrap him. He doesn't know what he missed. I say again,--imagine the things he would have done, right here in New York, if he had drawn on stone. I could weep. I thought something worth while really was going to happen when Frank Benson wrote me. I fixed him with stones, crayons, and a few remarks and he made an experiment or two. And then I heard no more of it. He could make ravishing lithographs if he would only learn how. But he did not seem to have any idea of learning lithography. His idea was simply to do as he had always done only do it on stone. I printed him two or three editions. They were as nothing compared to what he would have done if he had kept on.

Most of the artists I talked with,--not all, but most,--

seemed not to grasp the fact that a medium, lithography or any other, requires a man to do a certain amount of adapting himself to it, which we call learning it. A man cannot know anything about oil painting from the outside. It is when he comes to paint that he begins to learn things, and the more he paints the more he comes to know about it and the better he does it. Lithography is just the same way. Any art is.

Mr. Senefelder was in a considerable degree of error when he opined that since any artist can draw with dry crayon on paper, therefore he could with lithographic crayon on stone. Every art is itself and no other. I am personally very fond of doing both kinds of drawing, and have done thousands so that I have experience back of what I say.

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I received a letter from some people in Rochester. They have, it seems, an Art Museum up there. This letter wanted me to fix them with a technical exhibit of the essentials of lithography. Very well. I sent to them:(1) A drawing made with lithographic crayon on paper (2) a stone to which this same design had been transferred (3) proofs printed from the same stone (4) a stone with a crayon drawing on it in process of being made, partly completed (5) typewritten notes accurately describing these things. I charged them a hundred and fifty dollars.

A letter came from a Museum in the middle west, from its Director. His people were about to open, with ceremonies, a new wing devoted to prints. The only thing they needed to complete them, the letter said, was that I should come out and give them a talk on the great day. One of their rich townsmen had presented to them his very valuable collection of Whistler's lithographs. These were now displayed upon the new walls and as I was the specialist in lithography

would I not come out and tell them about it? The gist of my reply was as follows:

> Dear Sir:
>
> I have your appreciated invitation to speak at the opening of a new wing devoted to prints. Being, as you say, rather a specialist in this line I would be glad to come, and if you want me to I will come, but perhaps you had better think twice and make sure I am really your man. For you see the idea of a specialist is to know his specialty and if he tells anything to tell the truth. Your wealthy and well-meaning fellow citizen has, you say, presented your Museums with what he considers, and no doubt you consider, some very fine lithography by Whistler. This gentleman's mind, and your mind, and the mind of your public in general, is all made up and settled on this point,--I mean about these Whistler prints. If this donor's mind is unsettled, if he should at all suspect that he has ~~hade~~ made a mistake, it might tend to slow him up on some subsequent occasion when gifts to the public were being considered. Your institution would hardly, officially, desire that.
>
> Now, if I come out there in the midst of a general Whistler jubilation, and all the people are walking along the walls saying, "How wonderful.", and if I tell them the truth about those prints, and explain their true relation to lithography, and tell them what lithography is, what its history has been, and what its powers are, why you see, my statements might tend to confuse and cloud the present clear and bright state of mind prevailing among you. And I call your attention to this before accepting the invitation with which you have honored me so that you can, as I say, think twice and be sure I am the man you want, the man who will simply O.K. you all in your present positions.
>
> Sincerely,

The reply ran something like this:

> Dear Mr. Brown:
>
> How refreshing it is to come across a man who is absolutely frank! We have read your very kind letter and after considering the various bearings of the matter think that on the whole we shall be wise to let everything remain as it is.
>
> With very kind regards,

I have told the foregoing story to illustrate a general situation, a situation entirely attributable to the propaganda of Pennell. This is the fix that Joe has put the whole United States into. Says one of our greatest teachers (I happened on the passage yesterday), "There is not a more woeful and wonderful matter of thought than the power of a fool. In the world's affairs there is no design so great or good but it will take twenty wise men to help it forward a few inches, and a single fool can stop it; there is no evil so great or so terrible but that after a multitude of counselors have taken means to avoid it, a single fool will bring it down."

I was speaking, a little while ago, of Mr. Harshe and his engaging me to give the Scammon Lectures. When he had read the manuscript of "Lithography for Artists", he tried to get me to let the institute have it for nothing,--lock, stock, and barrel,--to be printed in place of printing the forthcoming lectures. I offered it to him for four hundred dollars, and I never knew a man to try so hard to get out of paying for so good an article. He did, however, finally agree to that sum.

When this bargaining was going on, I said that even if I sold the book I still wanted to edit it when published. At first, Mr. Harshe evaded this point. He wrote that "his Trustees" would not approve of what he called my "attack on Joseph Pennell who had at one time been a Scammon lecturer." He was for having me re-write it in accordance with the supposed desires of the Institute's Trustees. Naturally I could not do that, and I explained to Mr. Harshe, over and over, that it was I, personally, and not the Trustees, who was responsible for what appeared over my name. Certainly the public would so hold me, and ought so to hold me. I said also that what I had written was not an "attack", but merely a correct statement of an important fact, namely, the fact that, "When Mr. Pennell writes that 'you can do any-

thing on paper that you can do on stone', he writes what is not true." If this statement were true it would be a very important truth, but as it is not true it becomes simply an important lie. But it was not the soundness of my criticism that Mr. Harshe objected to. In fact, he agreed with it and wrote that he knew Pennell was "frequently misleading". Nevertheless, he still required me either to edit as dictated to or resign my editing rights altogether to the Institute to do with as they saw fit. I fought this contention hard. Pennell had been playing the devil with lithography for years and I was the man that knew it, and it was not right that I should be choked off from saying so. To be sure, I do not know that one of the Trustees ever heard a word about the matter. Probably not. But I give it as Mr. Harshe put the case. I considered his contention absolutely medieval, on its face. Nevertheless, after the most wearying and futile exchange of letters that I was ever involved in, I was forced to recognize that an entrenched, endowed, organized affair like the Art Institute could wield more brute power than a lone person like me could. Ethically, I was right, but if it was a case of power the Institute had it. And so, under clear and strong protest, I formally signed over to the Institute the right to edit, that is, to change, my book in any way it pleased. Upon this the Director instantly closed the deal. But the state of wonderment with which I had regarded all his actions received accentuation when the galley proofs showed no significant variation from my copy whatever. The words "not true" were translated into "mistakenly", and that was all. The whole fuss had been about nothing. There was a Windy City pioneer, years ago, who once prophesied that when Chicago took hold of culture "she would make culture hum". I guess that's what she is doing.

Well, then, after having bought the book, as it was, they came back to me with the cool request that I write for them a historical treatise, to precede the technical part, to help "make it sell". Obviously the book as it stood was a balanced unit, a growth of years. To glue on the outside of it an unrelated chunk of history would be like putting a fifth leg on a horse. But again my judgment was ignored, and pressure in different forms, including flattery (one letter referred to me as a "master of prose") was continued until at last I sat down and devoted two weeks of time and labor to grinding out what they demanded. And when they had carried their point, at my expense, and got it, they did exactly as before,--made no use of it. For which, God be praised!

All along there was a marked disposition to side-track the author in favor of the publishers. It showed in a number of ways. The lithographic portrait of the author, by Ernest Watson, would have been effective and appropriate, and I sent them a proof with that suggestion. No, they did not use it. I~~t~~ wanted to furnish the design impressed in gold on the black of the cover. In fact I made such a design and sent it to them,--free. No, they would not use it. It was a work of art, but how should they know that?

As a final touch,--the preface happened to have been written in New York. I signed it and dated it from where I wrote, the National Arts Club. They suppressed this. They wanted the impression of the public to be that the book was a Chicago product, brought about by the Art Institute. Of course, the claim made on the cover and the title page and elsewhere, that the book is the Scammon Lectures, is a "complete full-blown fiction". I protested against it and crossed it out in the proofs. The book grew through a long period and had been complete years before I knew the Scammon Lectures existed. I had stenographic reports made of my lectures and not a word of them is in the

book. The general public of course does not *read* the book. It merely gets the impression that the Institute somehow inspired its creation. Not an atom of which is true.

Tedious as all this sort of stuff is to read, and distasteful as it is to write, or even remember, it is clearly a part of lithographic history and should be recorded. The illustrations of the book, too, if I had not held out strenuously against it, would have been selected by "The Committee", according to Mr. Harshe's calm proposal. It was preposterous. The treatise was not a picture book, nor were its illustrations mere decorative frills to help make it sell. They were technical exemplifications of what was described in the text; self-evidently, the only man who could select them was the one who had created both text and pictures.

During the time I was in Chicago, I was requested to write something for one of the newspapers. In what I wrote there was reference, quite mild, to transfers or to Pennell--I forget exactly--and the editor blue-pencilled it. Not if Chicago could help it was going to be allowed to tell the truth, the whole truth, and nothing but the truth, about lithography. The city was *sold*, press and platform, to Pennellism. They had "money tied up" in his propaganda and his reputation.

Here is another story of its deadly grip. At the time I happened to arrive in Chicago, as Scammon Lecturer on lithography, the Institute was about to offer an exhibition of lithographs, and the Curator invited me to look over, with her, the prints it was proposed to put up. In the course of doing this, I eliminated some that were not lithographs. I also said to the lady, "It would be a very educational thing if you would separate the transfers from the crayonstones and hang them as two groups. In that way people could compare them and learn what each was like and how it compared with the other.

Very well. Yes, they would do that. But when they hung them, they didn't. All were mixed up. To me, explanation was made that there was something about the lighting that had made this necessary. "Well," I said, "it certainly educates people, and this is supposed to be an institution for public education. It educates people to learn what it is they are looking at. Now, why don't you let me stick a star on those prints that are crayonstones, and an explanatory notice of what the star means can be posted at the door?" Very well. An excellent idea. "Miss Attendant, get those wafers out of my desk and paste them on the prints Dr. Brown will show you." It was done. Two days later no notice was up. The caretaker appealed to me about the mystifying stars. What did they mean? People were all the time asking him and he could not tell them. When I visited the office they said there was an unfortunate hitch with the printer in the matter of the notice that was to have been posted. More days passed, several of them, and still no notice. I called up my good friend, Dudley Crafts Watson, well intrenched in the Institute, and told him about it. "Well, I'll see the Curator. I guess we can get it put up." More days, and nothing doing. Another phone call to Dudley. "Well, Bolton, that notice is going up if I have to put it up with my own hands." More days, and still no notice. At a third phone call to my friend he said, "Well, I'll tell you. I had a talk with Miss Curator about the notice and it seems to be the opinion of the department that it would be better not to put it up. She says that to star the crayonstones and not the transfers would probably create in the public mind the impression that *there was something the matter with our Whistlers*." (Italics mine!)

There you have it. We are not educating the public. We are protecting our prestige. I called on Mr. Harshe about this matter. He was amiability itself, agreed with me about almost everything and said that another year he would make it a condition that all prints submitted

for their exhibition must specify how they were made. Next year I was there. I asked him if he had done what he told me he was going to do. There was no change. He had simply backed out. When he owned up to this he did it with a laugh, as though it were a negligable trifle, not worth taking seriously.

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At the close of my Scammon Lectures, the Dean of the Art School part of the Institute, Mr. Kelley, called me in and engaged me to come to Chicago the next year (19) and teach a class. I duly taught this class and enjoyed doing so. During the time of its continuance, The Albert Roullier Art Galleries held an exhibition of fifty of my prints. The Rouillier people were entirely sympathetic with my aims. Also, they appreciated my results, which is not the same thing. I was invited to give a public talk at the galleries, and did so. The newspapers wrote up the show most favorably, one even classing it as "the most important that the gallery had given in half-a-dozen years". I brought my students over from the Institute and walked them about to see the application of the principles I was teaching them. And last, if not least, we sold prints. Of the "Moonlight", priced at forty dollars, ten impressions were sold, and of "Sylvia", at the same figure, six were sold, and of the others enough to bring the total receipts to nearly fifteen hundred dollars. Mr. Barns, of the gallery, said he wished we had priced the "Moonlight" at fifty, for he thought we would have sold just as many.

Mr. Donnelly, of the big publishing house of that name, came in. He bought a print or two, and invited me to lunch to meet his coadjutors at the plant. He showed me about, an immense affair, probably the most complete in existence. I enjoyed seeing it, and meeting the gentlemen who run it. My friend, who has fourteen hundred men under

him, wanted to get out some books which should be illustrated, one by etching, another by wood blocks, another by lithography, and so on. They showed me some lithographic prints their men had made. Probably they were good of their kind, but they did not savor of the studio. They felt "commercial" somehow. I could not say very much about them. Asked for advice, I expressed the opinion that fine lithography could hardly be printed in sufficient quantities for their purposes. They wanted to issue books by hundreds and thousands.

Owing to the personal courtesy of Dudley Crafts Watson, my stay in Chicago was made pleasanter by a card of admission to the club known as "The Cliff Dwellers". I used their quarters as a reading room, finding their shelves supplied with a singularly well-selected lot of books. As a slight recognition of this kindness on the part of the Cliff Dwellers, I gave them a proof of one of my prints. Probably it now hangs on their wall, along with other donations of a similar nature.

Clyde Burroughs is Director of the Detroit Museum of Art. I called on him, en route to Chicago. He saw my prints. He introduced me to some members of the Scarab Club, an organization composed entirely of artists. They said, in effect, "Well, here we have with us a man who really knows lithography. Why don't we get him to tell us and show us. Why don't we have a class." Mr. Burroughs asked me to give them a price for a two-weeks course, and I gave him six hundred dollars. Rather to my surprise they took me up. We skirmished around the city and succeeded in assembling at the Club House a press, stones, inks, varnishes, levigators, etc. etc. I think about a dozen men joined the class, among them the President of the Club. We worked every night for two weeks, and at the end of that time we had the walls filled with new-made lithographs. The noise we made echoed out into the public ear

and we were written up, in extenso, in the Sunday paper, with pictures of all of us at it in our working clothes.

On a subsequent visit to this city, the Museum engaged me, for a hundred dollars, to give a lecture and demonstration in their audience hall. The room was packed with the largest audience I had yet stood before. Mr son Robert lives in Detroit, and I impressed him as assistant. I rarely function with the aid of an assistant, but a good one is a convenience.

I stopped at Toledo and visited the Museum of Art. My prints were appreciated and I was invited to lunch with the Director and a group of persons of importance. We talked a lot about lithography. Later on, they bought three of my prints, an event considered of sufficient public importance to warrant the newspaper in headlining it in large letters across the top of an entire page. I was about to write that this was the most extensive newspaper spread I had ever received, but I remember now that Nina Purdy wrote me up, and the New York Sunday Tribune, accompanying it with reproductions of six of my prints, spread it over a double page.

PART IV

PENNELLISM

AND THE

PENNELLS

When photography came into the world, about the middle of the last century, among the consequences of its arrival was the gradual subsidence of artistic lithography. Photography made possible the cheap process reproduction, and in commercial competition with this, lithography was definitely beaten. Commercial work, of course, went on, from victory to victory. It is doing so yet, but we are not concerned with that. In their time, artistic lithographs, though works of art, had been also works of commerce. Publishers employed and paid artists just as they employed and paid other men. They also hired and paid the printer. Unfortunately for art, printers and artists belonged to different worlds, and worlds which mostly did not overlap. Unfortunate, but,--that was the way it was. Consequently when the trade of the publishers fell off, artists no longer produced lithographs.

There lived in London, fifty years ago, a printer named Thomas Way. He had a son, also a printer, Thomas R. Way. The elder Way went around among the artists, not as a publisher, but as a printer, and tried to inspire them to use lithography independently of the publishers, just for fun and to express themselves. He did not worry about whether they drew on paper or on stone. Either would bring grist to his mill; either one would have to be printed. We do not hear that Mr. Way urged the artists to do their own printing, as today Ernest Jackson does. Distinctly not. In 1878, Mr. Way, having persuaded that eminent painter and wit to try his hand, Whistler began by drawing a few experiments on stone. I call them experiments on general principles, because any man's first work, if he has any intelligence at all, must be experiments. Having made these few experiments, he gave up drawing on stone, and thereafter drew on paper designs which Way transferred to stone and printed as lithographs. Except for the biased testimony of the Pennells we do not know why Whistler ceased to draw on stone.

We can, however, make a reasonable guess that it was because he was not enamoured of its quality, as he was enamoured of the quality of oil painting and etching. In a word, he was not a natural lithographer. His main interest in lithography seems to have rooted in the fact that by it his drawings could be cheaply multiplied. At any rate, he never cared enough about the art of drawing on stone to practice it in any seriousness, as he practiced etching. He evidently set a higher value on his personal convenience,--a sheet of paper being lighter than a stone,--than he did on any superiority of result that he saw in using stone.

For twenty years, at an average interval of about once a month, Whistler made a little note or small sketch on paper with a lithographic pencil. Mr. H. P. Bray, employed in the Way printery, transferred and printed them. Because they were lithographically printed, the name of "lithographs" was applied to them, though they were not what the world had previously understood the word to mean,--prints from drawings made on stone.

In 1887, Goupil issued a portfolio of these productions, entitled, "Notes". I do not know the size of the edition, nor how many re-transfers of the designs, if any, were used. It did not sell. In 1893, Mrs. Pennell tell us, Mr. T. R. Way assembled artists at Barnard's Inn Hall, and introduced lithographic stones, transfer paper, and a press to them. He lectured and some of the artists made lithographic drawings. Joseph Pennell was one of the number. In 1895, Mr. Pennell made paper drawings in Spain, and in 1896, exhibited prints made by transferring these paper drawings to stone and printing them as lithographs. They were catalogued as "lithographs". This use of the word, which was not the customary one, made the identity of a lithograph solely a question of how it was printed, ignoring the infinitely more important question of how it was drawn.

Upon the appearance of these so-called lithographs, and the catalogue naming them as such, Walter Sickert, the English painter, wrote a letter which was printed in the "Saturday Review", of December twenty-sixth, 1896. I transcribe here that part of the letter which related to the matter in hand. The editor has placed over the letter the title, and thereby created a name which I suppose we may as well hold to,--the words

"TRANSFER LITHOGRAPHY"

"It were unjust to hold Mr. Pennell, the draughtsman, responsible for Mr. Pennell, the critic. Mr. Pennell is a clever draughtsman and a shocking bad critic. Some years ago, however, Professor Herkomer published a book with illustrations which he described as etchings by Professor Herkomer. Mr. Pennell protested in the papers that some of these were improperly described as etchings. He pointed out that, whereas an etching by so-and-so is worth so-and-so guineas, a photo-zinc reproduction of a pen drawing by the same person is worth less in the market than so-and-so pence. It was not a question of art, but of commercial morality. Here was no exaggerated purism. It was a clear case of articles described in such a manner as to mislead the purchaser on the vital point of the commercial value of what he was buying. Mr. Pennell's opinion was upheld by Sir Seymour Haden. His protest was successful. The papers were practically unanimous in their condemnation of Professor Herkomer's use of the English language and the offending description was withdrawn. It appears to me that in entitling the collection of illustrations of 'scenes and places described in Washington Irving's Alhambra' "lithographs", Mr. Pennell has been guilty of the same looseness of statement as he succeeded in bringing home to Professor Herkomer. If we are to keep our artistic diction pure,--and it is,

for every possible reason, artistic and commercial, well that we should do so,--a lithograph by Mr. Pennell must be made to mean a drawing done on the stone by Mr. Pennell and then printed. It does not mean a drawing done by Mr. Pennell on transfer paper and then transferred by the lithographer on to the stone, and then printed. . . A lithograph by Daumier means a print from a stone on which Daumier has drawn. . . For prints from stones to which the drawing has been transferred from lithographic paper some other term must be found. "Transfer lithograph" appears to me to be quite a nice phrase, and it, or some other equally unmistakable equivalent, should certainly be used by those who are by way of being purists, if they wish to be consistent. So much for the commercial aspect of the case. Esthetically, the crown and glory of true lithography is the range it affords, from the whiteness of the paper down to the most velvety depths of the black ink. This range is expressed in terms of the Bavarian stone. Here, then, is a beauty, half natural, half due to human skill, which is the attribute of lithography alone. When the drawing, however, is made on transfer paper, the range of color is restricted by about two-thirds, and it is expressed in terms of an artificial grain. The lithographic paper is manufactured to imitate the surface of the stone, and the grain is as much a sham as the marbled and varnished wall-paper on the staircases in a dear Victorian house. The artist who does transfer lithographs is, therefore, using a debased instrument. It has its conveniences, it is true, but it is nonsense to talk of a revival of lithography on these terms. It is full decadence. Interesting it may be. Drawings of merit may be executed in this, as in any other medium; but the art of lithography is degraded. . . . . Mr. Whistler is a genius. But he must not help Mr. Pennell to debase the currency."

WALTER SICKERT.

The Sickert contention is important because the kernel of it is that the main matter of public interest in a work of art is how it was DRAWN, not how it was printed. And as the things known as lithographs had been universally drawn on stone, to ignore this and call things drawn on paper by the same name was a misuse of language. He was, of course, perfectly right.

I think there arose, whether in relation to the Sickert letter or otherwise I am not sure, some question as to the commercial honesty of calling transfers lithographs. At any rate somebody fetched somebody into court about it, and the end was that it was decided, by law, that transfers might, without criminality, be called lithographs. Senefelder's process was a process of printing; it was called lithography. The Pennell transfers were printed by the Senefelder process; ergo, they were lithographs. That was as far as the legal mind could see. And to this legal decision, which was in itself excellent advertising, Pennell nailed his colors and went forth to battle.

Pennell, an illustrator of objective phenomena by profession, travelling far and wide for his subjects, has now made the discovery that he can just as well kill two birds with one stone; his illustrations could be photo-mechanically reproduced for publication in books, while the same drawings could also be transferred to stone and issued as lithographs. It looks easy. And it is.

For years, Whistler had played mildly with his little transfers. The advertising value of his name and example were great, nor was there any tendency to let any of it get away when handled by Pennell. If the public could be bamboozled and law-suited into accepting Whistler as a lithographer, then the battle against crayonstone was half won. Pennell's business interests were benefited by every move he made, but no trace of this appears on the surface of things. On the surface,

his position was that "lithography" was being sadly neglected, and all to the detriment of art; that it was a glorious method, still extant but almost expiring and much in need of being "revived". Nay, it had already been revived, for had not The Master already made many lithographs, out of a silver matchbox in his vest pocket? And had not the law stopped the sacrilegious mouth of him who denied these works the title of lithographs? Surely they were printed from stone, just as much as were the works of Gavarni and Daumier and Harding, and are just as much lithographs as the works of these high forerunners are. The commercial value of the name lithograph, of seeming to be in the line of an accepted and fine tradition did not for a moment excape Pennell, the propagandist. And for the rest of his life, this able illustrator, but shocking bad critic, did everything he could think of to forward business by the use of this idea.

He wrote (and a shocking bad writer he was), he lectured, he taught, he sent letters to the newspapers, he kept himself and his theory of lithography forever in the limelight. Whistler was made into a club and used to bat the heads of all heretics to his doctrine. Mrs. Pennell's literary efforts helped spread the propaganda, for a regular propaganda it became. She, too, would reduce a world to silence by breathing the name of Whistler. In 1897, she published an article in Scribner's Magazine, entitled, "The Master of Lithography". "His first prints," we read, "showed him to be the accomplished artist in this as in all mediums. . .He works in his own way, which is the right way, today as he did twenty years ago, and he has established the standard against which it is useless for the present generation to rebel." My sense of humor forbids me to mar this gem by any comment whatever.

The fight to get transfers accepted as lithographs, as the same art as that which was practiced by the historic lithographers,

occasionally enlisted other interested parties. Frederick Keppel and Company, print dealers who sell Mr. Pennell's transfers, published a book by Pennell. It is entitled, "Lithography". In it the statement is made that "it has been said by critics that drawing on paper is not so full and rich as drawing on stone. Artists know that this is false, and no expert can tell the difference."

In 1897, "The Critic", of London, published a letter by Frederick Keppell. He refers to the method of transfer as "one of the labor saving appliances now used by Whistler, LaTour, Pennell, and others", and then observes that "less up-to-date men still make lithographs on stone". This hits the nail on the head in one respect at least; these up-to-date men are using a labor saving appliance. They were indeed, but what this has to do with art one does not see. He proceeds (they all try to hang it on Whistler in the end), "No one can accuse Whistler of dishonesty, yet he uses transfer and calls the result lithography." It makes me think of the riddle: "How many legs has a dog got if you call his tail a leg?" The answer is four, because calling his tail a leg doesn't make it one. Whistler, to whom I have no intention of doing an injustice, really did not say foolish things. He left that to his satellites. What he said was,--and he said it twenty years after his first experiments,--that he found the method "restricted indeed", and he refers to himself, in the same passage, as a "beginner". And this was about the truth. But it was not at all what the Ways and the Pennells wanted to hear. They were trying to hang a lithographic religion on him, and to hear a divinity talk reasonably is painful to rabid zealots. Way published a regret, almost an accusation, about this statement of Whistler's.

In 1889, Pennell writes for the International Studio, an article which he entitles, without a smile, "The Truth About Lithography". It is a statement of Pennellism. The essence of which he

puts into the words, "You can do anything on paper that you can do on stone." This is on a par with, "No expert can tell the difference." Thirty years later, in the manuscript of my book, "Lithography for Artists", I stated that when Pennell said you could do anything on paper that you could do on stone he said what was not true. The book was published by the Art Institute of Chicago. They edited out my statement, and substituted one of their own. As published, I am made to say that Mr. Pennell was "mistaken". Whether a man is mistaken, or whether he is lying may be disputed about, but whether what he says is true or not true is a matter of fact. In this case it is a fact open to absolute demonstration. I say it is open to demonstration and so it is to any one needing to have demonstrated what anybody can see at a glance. That you can do on paper anything you can do on stone is a statement more than merely false; it is preposterously and laughable so. I should not be telling a larger whopper if I said you could do anything with a lead pencil that you can do with charcoal.

Nor have we any reason to be surprised if Pennell writes "mistakenly". We have reason to be surprised, or we would have if we did not know him, that he says anything. For how should he, who, by his own loud profession does not draw on the stone, how should he be in a position to lay down the law as to what you can do on stone? And why should anybody care a rap what he says? And never yet has any other artist been discovered who agrees with him,--not one. I have drawn hundreds of designs on stone and endless quantities on paper. Consequently, of my own esperience I know the falsity,--falsity to the point of absurdity,--of the Pennell claim. Years ago I offered, publicly, to give a farm to anyone who would successfully copy, by paper transfer, one square inch out of any good piece of old crayonstone work. Never has the offer been taken up, because every man with any ability to draw at all sees that it cannot be done.

Pennell, too, knows quite well that it cannot be done. When he is off his guard he says so. I offer the following quotation from his work entitled, "The Illustration of Books" published in London in 1895. "For many reasons it would probably be best to draw on the stone itself always." Then he lets the cat out of the bag. The real reason why we are not to draw on stone is simply the physical inconvenience for the peripatetic illustrator; it has nothing to do with art. He says, "It is obviously impossible to carry a big heavy stone with one; *therefore* (italics mine) lithographic transfer paper must be used if the work is to be done from nature."

Spencer Pryse, twenty years after this was written, carried about a big heavy stone on the battlefields of the world war, and drew on it from nature. In his catalogue of lithographs exhibited in 1895, Pennell says, "The stone gives one quality, and the paper another." Both these statements are in direct contradiction to his claim that "no expert can tell the difference". When Pennell has an axe to grind, when he is propagandizing, he swears roundly, in writing, in lectures, in conversation, that you can do anything on paper that you can do on stone, and that no expert can tell the difference. But he knows better; his own words show that he does. He propagandizes because he wants to get the benefit of the interest and admiration which crayonstone for a century commanded. He wants to "revive" that interest and admiration and tack it on to his transfers. The labor and training necessary for stone work he hates, and he wants us to think that his cheaper and easier scheme of flitting about with some sheets of paper results in something "just as good". Forty years of Pennell, Pennellists, and Pennellism have failed to substantiate that claim in any degree whatever.

No one need think that ~~No need to think that~~ I do not know Pennell can draw; I know and heartily admire his gifts as a draughtsman. But I am not talking

about them now; I am talking about his charlatanism. I used this word in the same connection in conversation with Director Fox of the Brooklyn Museum. "Well," he replied, "perhaps he is a little of a charlatan." Mr. A. Augustus Healy was the President of the Board of Trustees of the same institution; he was also a personal friend of Whistler. When I happened to mention to him that Whistler's prints were done on paper he was surprised. Hearing them called lithographs he had taken it for granted that they were crayonstones. His first words were, "Why, then they aren't lithographs at all." His judgment was instantly and exactly that of Sickert; namely, that they were not lithographs; the name had deceived him.

In 1919, The Studio, Ltd., published "Modern Woodcuts and Lithographs by British and French Artists", with commentary by Malcolm C. Salaman. In his commentary he refers to this contention of Pennell's that transfer is equal to crayonstone, and he says he does not think "any of our genuine lithographic artists" would agree with it. The wording of the above quotation, it will be observed, excludes the President of the Senefelder Club from the ranks of our genuine lithographers. This is quite as it should be. The same exclusion would, of course, extend, for the same reason, to Whistler. According to Mr. Salaman, contemporary artists who accept crayonstone as genuine lithography include "all our distinguished lithographers", of whom he mentions by name, Brangwyn, F. Ernest Jackson, Kerr Lawson, Sullivan, Becker, Hartrick, Spencer Pryse, John Copley, Ethel Gabain, and Bellroche. Mr. Bellroche will not even allow that the merits of a drawing on paper, such as they are, ever come through the transfer process and appear in the print. He writes to Mr. Salaman that transferring is "handy for rough sketches", but that a good drawing will certainly "lose all its savor after it has been subjected to the transfer operation".

Professor F. Ernest Jackson has for many years taught artistic lithography in the London County Council School at Kingsway. He is a master of printing, and on the stone a draughtsman of high artistic distinction. In 1924, he writes in an article in the that "clear thought about prints can only be arrived at after long practice in producing them", and he says that in time his materials will "reveal their secrets to him who watches and obeys them, and to him only". "Watches and obeys"--beautiful words! Conversing with Professor Jackson, I brought up this transfer question. He sniffed. To his mind there was no question. "Everybody draws on stone," he said, and after a pause added, with contempt, "except Joe Pennell and fellows like that." Of lithography at large he declared that, "Joe Pennell knows nothing whatever about it. All he knows he got by standing by my press."

On the whole it would appear that neither Whistler nor Pennell cared a straw for those qualities in crayonstone that endear it to those who understnad it. To them it was primarily not a drawing opportunity, but merely a scheme of reproduction. Whistler is content to draw his little "notes", on paper, exactly as he might have done with a lead pencil, and what he gets pleases him, and all he asks of lithography is to give him multiples of the same thing. If the stone had appealed to him, he would have used it. Other men, to whom it did appeal, did use it. Mrs. Pennell's lament that the poor man was "prevented" from learning the whole art, printing and all, is absurd. The essentials of the matter are to be found in any number of handbooks, and the necessary materials were on the market everywhere. For less than a hundred dollars he could any day have had a complete working equipment set up in his studio. That he did not do so proves simply that he did not want to.

Whistler's original lithographic idea, according to the statements of Mrs. Pennell in the Pennell book, was of an economic nature, not an artistic one. She says he wanted "to publish them in large numbers for a small price". But when he tried it and there were no takers, the scheme naturally fell through. It is not at all surprising that there were no takers. The things did not look like lithographs, nor were they quite paper drawings. If they had been either one, they might have been perfect things, technically, in their way. But being what they were they fell between the two things,--neither fish nor flesh. The transferring gave them a non-descript sort of texture,--not paper, not stone. On paper, the mark of the pencil is a beautifully exact record of the movement and pressure of the hand. Through long familiarity we read these movements and pressures; the touch is alive. It is the same in the case of speech; the living feeling of the speaker controls the most minute inflections of his voice. It is true in ordinary talk, and even more true in poetic speech, and most true of all in music. And in drawing this same vital expression is by means of the fingers in a language addressed to the eye. And just as muddling vocal intonations muddles expression, so muddling manual records does also. In art, personal expression is everything. A drawing by Whistler will not stand muddling. Moreover, his crayon sketches on paper were, to begin with, inferior to what he would have done with the lead pencil.

When the chalk drawing is transferred, it does not really carry over the perfection of touch that it had on paper; it fails a little, and looks like,--well, to be frank, it looks like just what it is, a somewhat imperfect reproduction of a drawing on paper. The literary critics, before the Whistler transfers, chirp over the lovely little model and the remarkable old blacksmith and so forth

and so on,--all of which may be freely agreed to without touching the question of lithography at all. The little model and the blacksmith might have been achieved, and for the most part better achieved, in a simple pencil drawing.

But when you see a work by a natural lithographer, you can not say that; you see that it could not have been done in any other material. If Whistler had habituated himself to draw on stone, and had drawn the model and the blacksmith on it, the prints of these subjects would have been different from what they are, and far superior.

Compared to the Whistler things, the typical Pennell transfer suffers far less. And the reason is clear; it is done on coarse paper and is of very large dimensions. Therefore its component granules instead of being of nearly or quite microscopic smallness, as in the Whistler work, are not small at all. They are so large that they retain their identity pretty well even after being transferred, and consequently a handsome original by Pennell results in a handsome print. Used in that way, the lithographic transfer process is a successful mathod of reproducing. Only--it is not lithography. A Pennell reproduction, as far away as you can see it, is very plainly a paper-drawn design. Calling it a lithograph is just hocus-pocus.

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The book which the Pennells wrote, "Lithography and Lithographers", is all for transfer, on every page; and always Whistler is a great lithographer. To sustain these positions there is a good deal of what we may call omission and commission. The conclusions that an ordinary reader might be led to are not always quite the same that he might arrive at if he got his information from other sources. As an instance: we read concerning Whistler, "He drew on stone in the

seventies, on paper in the nineties." And there is a complete omission of any hint that out of a hundred and sixty prints, only the first nine--the FIRST nine, mind you, were on stone. He is, Mrs. Pennell affirms, "a perfect master of his material in all its variety and subtlety". No man ever became a perfect master of anything in his first nine experiments. Again, the statement, standing alone, "He worked in wash." No hint of how very few times he "worked in wash", nor how badly most of them came out. You are allowed to suppose that whenever the fit took him he just stepped out and made a lithotint. But if you suppose this, you suppose erroneously. All told he is credited with having tried ten lithotints out of a hundred and sixty designs spread through twenty years. Three of these are mostly done with crayon, containing merely some experimental swishings of the wash here and there. Of the remaining seven, no less than four, "Early Morning", "Limehouse", "Nocturne", and "The Toilet", Mr. T. R. Way refers to in his "Memories of Whistler" as "not lithotints, but in the 'maniere noire', the stone being prepared before he touched it. . . with half tints on which he worked by adding darks and scraping lights." This reduces the actual lithotints to three, in twenty years. "He worked in wash."

In Mrs. Pennell's article in Scribner's Magazine, already referred to, Whistler is credited with "unswerving directness, the seal of hallmark which he placed upon lithography." If one's capacity to be made dizzy were not already exhausted, statements like this would make him very dizzy indeed. Nothing could be further from the way Whistler made his transfers. I submit extracts from the Way's catalogue. He speaks of the "Early Morning", thus: "The first state, of which twelve copies were printed, is so dark as to represent a time before dawn. The broad washes of ink laid on the prepared tint

are seen to have run together in places and to have lost the drawing. . . There is hardly any indication of scraping. The artist then took the stone in hand and by two further states scraped away the unnecessary darks and recovered the drawing; after each scraping the subject was still further lightened by re-etching. . ." Of "Limehouse" he says, "The first state is very dull and uninteresting in effect, the sky having printed far too dark, etc. . . by means of the scrape. . .re-etching as well some darkening of the buildings. . . the true relation of the various parts was obtained." In the creation of "The Toilet", "The figure was afterwards greatly lightened throughout with successive scrapings and re-etchings." All these many "re-etchings", it should be remembered, were not done by Whistler at all, but by the printer. "Re-etching", I may explain, is simply dissolving away some of the drawing with acid. And as the action of the acid is invisible, and cannot be known until it is done and it is too late to change it, there is in this operation a large element of chance. And, as already said, the printer mixes and applies the acid, not the artist, so that the results are to be credited to the printer. Any experienced person knows that Way and Whistler, going along in this way, would be quite unable to foresee with any definiteness what a re-etch would do; they just went ahead and tried it, and then did the best they could with what happened.

So much for Whistler's "unswerving directness", the "seal and hall-mark that he placed upon lithography". But if the reader desires other testimony to the way Whistler produced his prints, I will offer that of Mrs. Pennell herself. She writes, "Beautiful drawings were put upon the stone (transferred, she should have written), and came out ghosts, or rolled up too black and required a special journey to London and days of work (my italics) to get them right.

But work was something Whistler never shirked, and he stuck at the stones to which his drawings had been transferred until he got what he wanted." Surely, this is a style about as far removed as it could be from unswerving directness. Also, there would seem to be some discrepancy between these accounts and the favorite Pennell contention that a ~~transferred~~ transfer gives exactly on the stone what was on the paper. The drawings Whistler made on paper, when transferred to stone, it seems had a way of rolling up black or coming out ghosts. This does not sound at all like the no-one-can-tell-the-difference state of things.

The obvious, and perfectly natural, fact is that the drawings, as they appeared on the stone when they had been transferred, were failures, and that Whistler then went at the failure and, powerfully assisted by a skillful printer and re-etcher at his elbow, scraped and tinkered away, sometimes for days, and in the end brought ~~out~~ something into existence; but how closely this followed the intention of the original drawing every artist will know. Moreover, scraping a design into existence on the stone is not lithographic drawing at all, nor, properly speaking, any kind of drawing; it is a form of engraving. This is what Mrs. Pennell calls being a "perfect master". This is the man who has "established standards against which it is useless to rebel".

Of course, it is impossible for me not to know that Mrs. Pennell knows nothing about lithography; the internal evidence of her writings proves it. She does not appear even to have had the advantage that her husband enjoyed in "standing by the press" of Professor Jackson. And how can one know unless one has learned and how can one learn except by experience? Did this literary lady who, in a tone of high authority, presumes to dictate an attitude to a world, ever grain or draw upon a stone, or mix ink, or handle a press, or

dampen paper, or grease a tympan, or pull a print. We know she did not. The nearest she ever came to lithography was to be the wife of a man who "never had a press", and "didn't want one". I think again of Professor Jackson, whose achievements amply justify the rest of us in respecting his words; and what he says is that "clear thought about prints can be arrived at only after long practice producing them". Herein he expresses an attitude of mind that has been in the world a long time, even since the time of Aristotle, whom Professor Denman Ross finds making the statement that, "It is difficult if not impossible, for those who do not perform to be good judges of the performances of others."

Mrs. Pennell, in the Scribner article, undertakes to write about lithography. She sets out to speak in technical vein and to state some plain physical facts. This is what she says, "A lithograph is a drawing", which it is not; it is a print; "made with a certain ink or chalk upon a *chemically prepared* (italics mine) stone." Well, there you are. If there is one thing a stone is *not*, it is not "chemically prepared" when you draw on it. On the contrary, it is just as free from chemicals and everything else as you can get it.

And I am not aware of any evidence to show that Mr. Pennell really knew much more about these things than his wife did. It would be difficult to disprove the accuracy of Professor Jackson's statement that "he knew nothing whatever about it." In my personal contacts with him, I never ? knew him to show any inside knowledge. I have heard him *claim* it, but I never saw him show it. Once, at the Art Centre, when the Graphic Arts Society had brought him and me before an audience, he said, publicly, "I have made *hundreds* of discoveries." He did not tell us what any of them were. However, at another time, the time in when the show of my lithographs was on at the

National Arts Club, he did, to me in conversation, reveal one of his hundreds. He said, "All those old lithographers that made those great skies did not do it with crayon at all; that's all wrong. I have studied them and found out how they did it, and they did it by rubbing ~~furring~~ them with a rag. I know that's the way they were made, and I can make one in five minutes." There is such a thing as "saying an undisputed thing in such a solemn way", and there is such a thing as saying a thing so blatantly and obviously false that to dispute it would be ridiculous. So I did not say anything. Then, his mind still running on the same point, he turned and walked over to a sky of mine, elaborately and plainly done with the crayon point, and declared it a case of rubbed tint. When I assured him it was not, he pretended to refuse to believe me. Not content with one bad miss, nor in the least abashed, he ambled on down the wall and pointed out another of mine as quite certainly a case of rubbed tint. It was even more self-evidently point work than the first one was, A man with eyes like that is quite capable of imagining the old masters made their skies, full of delicate tonality and lovely cloud-forms, by rubbing them with rags,--another "labor-saving appliance" discovered.

I know quite as well ~~as well~~ as anyone that, in the capacities in which I have been speaking of him, Mr. Pennell is, as George Moore says of somebody's painting, "quite outside the range of criticism". And certainly he would be outside the range of my criticism and of my interest if it were not for the folly of the American people in letting a man like this lead them by the nose. By his sheer preposterous assumption, his extraordinary gift at propaganda, his ignorance, his unscrupulousness, and his "shocking bad criticism", he has literally put it all over the people of this great, but not artistic, republic. One day I was in the office of the editor of the

"National Lithographer", and we were hob-nobbing along about the world in general when, apropos of nothing at all, but as if suddenly shot by a painful thought, he exclaimed, "Joe Pennell has done lithography more harm than anybody in the world!"

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Of the Pennell book, "Lithography and Lithographers", I will not just yet speak as a whole, but only pick out a few Pennellisms from the "Technical Section", attributed to Mr. Pennell. Mrs. Pennell wrote the historical part, and it is a very mild compliment indeed to say that she writes better than her husband. She has got together quite a lot of assorted information of considerable interest. One's pleasure in reading it, however, is too frequently marred by an unpleasant note of quarrellsomeness, of a feeling as if the author felt herself to be a party to a chronic scrap. And there is a tone redolent of personal partisanships and personal antagonisms. Not content to set down mere facts, or the general judgment of mankind, the author all along delivers personal ipse dixits as to the merits, demerits, and crimes of the characters mentioned. In short, Mrs. Pennell is a judge, and a very ex cathedra one. To slap in the face men who have left their mark on whole civilizations is not a matter to be hesitated about for a moment; this is the attitude about Thackeray, about Ruskin. That tone of universal contempt and sarcasm by which the Whistlerian ego kept itself aloft is here plainly reflected. In both the Pennells it is more than discernable; it sticks out. There is a chronic itch to contradict; and the bigger the man the more uncontrollable the itch to contradict him, to pull him down. It is a sort of jealousy. If Ruskin values and commends Prout, inevitably Mrs. Pennell speaks of Prout with insolence. And so on and so on.

There is constant railing. One wearies of it: Railing against "The English", against "the printers", against "the Academy", against, well, almost everything.

Speaking of the habit of universal contradiction, my mind has reverted to Mr. Pennell. I have sometimes seriously thought that Pennell used it, consciously, as an advertising device. P. T. Barnum, if he couldn't get favorable publicity was very glad to get unfavorable publicity. Anything was better than not to be noticed at all. If Pennell contradicts what everybody believes, it makes him conspicuous, which is a thing he always greatly desired. He did not care about the truth in the ethical sense, for its own sacred sake. He simply liked to quarrel, because quarrelling gives you a chance to assert your ego against the other fellow. And then, like the Japanese suicide, it "drew the attention". I think many of the things he says are just said for the sake of having a lot of people rush our and bring him into the limelight by correcting him. He is, in fact, hardly to be explained otherwise. In his articles in Scribner's entitled, "Recollections of an Illustrator", he credits himself with "occasional bursts of cheek". This undoubtedly explains his having the nerve to come out in print as an authority on lithography.

I do not think I am an ethical hair-splitter, yet without being that, I cannot help wondering whether some of the things I note in the Pennell campaign against drawing on stone are not sailing rather close to the wind. It is now the Pennell book that I am considering. Two or three decades before its time, Hamerton had published an excellent and well received treatise entitled, "Etching and Etchers". The Pennell title is, "Lithography and Lithographers". There is a hint of derivitiveness. Again, long before, Hamerton had published an excellent and well received book entitled, "The Graphic Arts". The

Pennell sub-title is "The Graphic Arts Series". I will leave it to those who are versed the the psychology of advertising to cogitate upon these coincidences.

Incidentally, the Pennell "series" consisted of ~~the~~ two books. In his "General preface to the Graphic Arts Series", over the initials J. P., we read, "So far as I know there are no books on the graphic arts, aritten or edited, by graphic artists." Of course, there are any qyantity of them. If we leave out Pliny, A. D. 70, there was an eleventh century monk, Theophilas, and there was at the tail of the thirteenth century, Cennino Cennini, and there was Leonardo da Vinci, and Armenini, and many others. In later times, endless books on how to practice this or that art were produced all over Europe: Lalanne on Etching, also Abraham Bosse on the same, and Hamerton, Harding and Prout on pencil work, etc. etc. However, getting back to my quotation from Pennell, he continues, "This series is intended to be a survey of the best work in the past. . . and a definite statement of the best methods of making drawings, prints, and engravings, written in every case by those who have passed their lives in making them." The way this reads, there is no doubt that the reader is expected to go away with the idea that Mr. Pennell has more or less passed his life in "making" lithographs. And if the reader does so, he goes away with an idea not even remotely in agreement with the facts.

You cannot "make" a lithograph, which is a print, without a mechanical equipment. Mr. Pennell, President of the Senefelder Club, never used stones, never had a press. Speaking in public before the National Arts Club, in New York, he said he had never had a press, and didn't want one. I was there and heard him. He spoke with an accent of contempt, as much as to say he would leave all that kind of thing to the mechanics. In reality, all that Pennell could do toward

"making" a lithograph, which is a print, was to go outdoors and draw on paper with Korn's crayon. And after that he could "stand by the press" and bedevil the printer; this is the whole story in a nutshell. He never grained a stone in his life, nor drew on a stone, nor rolled up a stone, nor mixed the ink for a stone, nor pulled a proof. At any rate, if he ever did any of these things, and they are all parts of making a lithograph, he has most modestly and successfully concealed the fact. And so, when a casual person reads that the things in the Pennell book are written by one who has passed his life in "making" lithographic prints, is he likely to get straight in his head the facts as they are?

When the matter on the carpet is so technical, probably I should be ill-advised if I were to try to set out in words, for public consumption, the many loop-holes (loop-holes in his thought and loop-holes in his words) through which Pennell's ignorance shows itself. If I were talking to an audience of printers I could do just that; only, to such an audience it would not be needed; they would see for themselves. Probably, my best way will be just to do a little casual discoursing about various interesting things that have attracted my attention.

From his writing, and from what I know about him, I can form a pretty accurate conception of what Pennell means when he puts on the titlepage of his volume the words, "Modern Artistic Methods". What he means is his own methods; at bottom that is what he is talking about always. His print-making method consists in not making them at all, but in telling somebody else how to make them. "He stands by the press",--not his own press; he has no press and does not want one. But he can stand beside the professional printer and tell him how to print. This is the typical outsider, all the world over. When a trained man does a thing it "looks so easy" that the ignoramus standing

by is sure he could do it himself if he would condescend to try. What a lithographic printer knows of inks and acids, stones and pressures, possibilities and impossibilities, you cannot tell merely by standing by his press. When you stand there it *seems as though* you could do this or that or the other. Mostly, however, things are not what they seem. And the craftsman whose hands deal with his materials all day long for years on end, can judge the wisest way to use them better than any outsider can.

Pennell does not think so. His attitude is that the printer is probably a fool and possibly a rascal. He says that in Germany he showed the German printers new points in their game. He says that he pointed out what he wanted "and showed the printer how to get it", but that he failed to do so. Finally, "he refused to work while I was about." After the printer had refused to work, Pennell makes the discovery that "under such conditions" no excellent prints could be obtained and "refused to go on." If, after the printer had quit, he had gone on he would have had to print himself. He might have learned something.

Under the heading of Printing Ink, we learn that "the printer" can use a "thin, weak ink" much more easily, and with less work in rolling than a "thick, stiff one" and "he will, if not watched". And so, when the attendant artist is insufficiently watchful, "many drawings are utterly ruined after a few impressions". Odd, isn't it, that this should be so, considering the acres and oceans of prints that have somehow come into the world without any artist standing by as their accoucher? You would not think that all over Europe and America, for a hundred years, the printers, unwatched, had done the printing.

Also, "The professional printer, unless he is an artist, will use ink of an inferior quality, because he can cover the design with it more easily and with less work. The only sure way to success is

for the artist either to print himself, or stand beside the printer." And if you turn the pages and read what happens when he does stand there you will get much light on the Pennell conception of "a sure way". If anything good comes about, it is the watchfulness of the artist that brought it; whatever goes wrong is the fault of the printer.

Mr. Pennell undertakes to tell about the chemical and mechanical side of things. His writing is quite the worst, and ~~the~~ there are places where, with the best intention in the world to understand what he is trying to say, I find it impossible. I never heard of anyone who paid any attention to these chapters, and my own sole excuse for doing so is that, as I have already said, Pennellism has become, in America, a disease, and I wish to help combat its inroads.

What Pennell tells is not the telling of a workman, of one who, as Confucius says, "knows and knows that he knows". He has stood by while the real workmen did this and that, and he thinks he understands. And then he goes ahead and explains to the world all about it. He adds to his own confusion, as well as to that of his reader, by every little while lugging in Senefelder. As long as Senefelder agrees with Pennell, Senefelder is an authority and very much all right. But in the technical sense, Pennell never understood him. He would have liked to, perhaps, and it may be that at convenient moments he tried to. But hardly with seriousness; he read Senefelder's words, and that was all. However, he recognized that Senefelder was "good publicity", and took the attitude that he, Pennell, had, as it were, discovered Senefelder--a worthy, neglected, mistreated man--and he raps the knuckles of the world quite hard about it.

As illustrating how Pennell reads Senefelder's words, but not his meaning, I instance the case where Pennell reads in Senefelder how a certain acid should be used. Then, having stood by the press and

seen that the printers do otherwise, he is puzzled. Then, he tells the reader about his puzzlement. "Senefelder recommends," he says, "that certain drawings should be washed with mitric acid before being gummed. But no printers seem to do this at present. . ." and then follows the inevitable outsider's offering on the matter. He says he "believes it would wash off the drawing". Senefelder is forgotten, and the man who has stood beside the printer has "beliefs" quite contrary to those of the inventor of lithography. Chemistry is not a matter of "belief". If you know it, you know it, and if you do not you are ignorant of it. In this case Pennell is ignorant. All this sort of thing is as familiar to me as boiling a potato~~r~~ is to a cook, and no more mysterious. The wash of weak acid recommended by Senefelder is simply an etch, but because the gum has been left out Pennell does not recognize it. Probably he never knew that the original way of etching lithographic drawings, practiced everywhere for decades, was just this way of applying to them a wash of acid and water. Hullmandel's translation of Raucourt's French treatise gives this as the regular method; and even half a century later Richmond's "Grammar of Lithography" describes it. In the eleventh edition of the Encyclopedia Brittanica, it is again described and given as the preferred method of the author, one of the most accomplished lithographers in England. Does all this have any effect on Pennell? Not the slightest. He believes the acid wash would wash the drawing off the stone. Whereas, its very purpose, as everybody but the President of the Senefelder Club knows, is to destroy the solubility of the crayon and thus render it incapable of being washed off.

Mr. Pennell explains how the etching of the stone has been done by such printers as he has stood by the side of, and then he tells us how he thinks it ought to be done. But he has no knowledge

of why the printers have done it one way and not another way. What he gives the reader has slight relation to the craft of lithographic printing, as the world has created and used it. What he is really giving, under the illusion that it is "lithography", and a typical experience, is the story of his own private adventures when standing by the press trying to coerce the printer and the process into giving him what he wanted.

There is a way of etching a stone, stated by Senefelder, used everywhere, re-stated in every handbook. Of it Pennell writes, "This method is entirely ~~wront~~ wrong, though Senefelder recommends it." And then he gives his own idea of how to etch a stone, modestly mentioning that "it is the only artistic way of etching." In my book "Lithography for Artists", I give my own methods. They are just the opposite to the way Pennell thinks is the only way. "Finally," he writes, "do as little etching as possible, and delay that till the last minute, for etching a lithograph is a most dangerous and delicate operation. Etching is the easiest and quickest way of ruining a drawing, and the most difficult way of improving it."

Here truly, we are in the land of Muddle. Muddle in statement; muddle in implication. The implication is that the etching is a way--the most difficult way, it is true, but it is a way of "improving" a drawing. The etching has nothing to do with improving anything; that is not its business; its business is to render printable the drawing as it is. If you do "as little etching as possible", you are by way of getting an under-etched stone, and such a stone prints with difficulty and is short-lived. You would never guess it from Pennell; he does not know it. The implication that in etching a stone one is close to an easy and quick way to ruin it, is grossly misleading. You can, certainly, ruin a stone with acid, just as you can with a

sledge hammer, but one is quite as unnecessary as the other. The whole history of lithography is a refutation of such an idea.

I have etched the most delicate work possible for myself, for Bellows, for others, by the hundred. The etching never ruins the drawing nor injures it in the slightest. It renders it printable, that's all. I even etched one of Pennell's own, and under his own eyes. I had forgotten it until this moment. It was in February, 1923, the night the Association of American Artists gave a public "lithographic evening" in the Anderson Gallery, in New York. Every seat in the hall was taken, at a dollar each, and many turned away. On the platform was Bellows, lecturing, and me at (not by but at) the press. Before the audience I etched and pulled perfect proofs of, first a stone by Bellows and then one by Sterner. Then Pennell's turn came. As he does not draw on stone he handed me a drawing on paper. When I was getting ready to transfer it, he began to tell me how. I turned to him and said, "Mr. Pennell, I shall be very glad to have you do this transferring; will you not do it yourself?" "Oh, No, No." he said, backing away. "Well, in that case, please allow me to do it." I said, and forthwith transferred, etched, and pulled a perfect proof. The very first pull was perfect. It was passed from hand through the technical and critical audience, which so accepted it. The next day I pulled a whole edition from that stone, every one flawless.

This is far removed indeed from the Pennell idea. The Pennell idea is that it takes two men, a printer and an artist, and that both of them fuss and experiment and little by little "get the stone into condition", and pull a lot of bad trial proofs and throw them on the floor, and etch a little here, and scrape a little there, and take some more trials, and then rub some pumice on some places and the flat of the crayon on some other places, and then something else, ad

infinitem. This is nonsense printing, the printing of people who do not know how to print. They only know how to teach it. To pretend that it is "modern" and "artistic" is simply more nonsense. One wonders how in the world Pennell ever got started in that way of doing things, until he happens to remember that Whistler fussed "sometimes for days" over his stones, and made a merit of it. No, I do him an injustice; it was the Pennells that tried to make it into a merit.

The fact is that both Pennell and Whistler were all along mixing up two ideas, the idea of the work as it was on the paper, and the idea of what you could do with it *after it was transferred to the surface of the stone*, before it was printed. By the theory of artistic transferring,--and nobody has declared it more loudly,--the thing on the stone ought to be *exactly* what was previously on the paper and complete there, a masterpiece. If the transfer does not give this, and the operations of both Pennell and Whistler deny it point blank, then it is an imperfect process and unfit for artists' use. Both these men did a deal of tinkering the design, a design supposed to have been already completed, on paper. Plainly, this is neither drawing on stone, nor is it simply transfer; it is a non-descript and hybrid make-shift, and it is no wonder that these artists drove their printers and themselves crazy. How much simpler and more satisfactory it would have been to draw the design on the stone, with crayon, in the first place. That is the way all the rational and beautiful lithography in the world had been done up to the time this transfer disease set in. A *real* lithograph, that is, a crayonstone, prints as clean and sure as a pump draws water. The functions of the artist and those of the printer are distinct, and not overlapped and inextricably entangled as in the Pennell conception. I say, the drawing made on the

stone prints from the stone perfectly; not, to be sure, when "etched as little as possible", but when etched exactly right. Which recalls, that Hubert Herkomer, who knew his way about in lithography, and who made valuable contributions and wrote a book about it, writes that "it is better to etch too much than too little", just the opposite to what Pennell says.

One who stands beside the press knows as little about the tools in the printer's hands as he does of the chemicals he is using and of the knowledge in his head. For instance, there is the roller. Now, the roller is the most important thing in the show and its use is an art. Whole chapters could be written about it. In London, I supervised the making of a number of extra fine rollers by expert roller makers. I sat round their work benches by the hour as they worked, and discussed rollers from every angle with men who were the repositories of a century of craft-knowledge of rollers and ~~how~~ how to use them. They told me many intimate things that had been told them by expert printers.

But you must of course, handle the roller yourself in order to understnad it; merely watching some one else handle it will not do at all. In use, the timing of the rythm of its application, the dampness it has from the damp of the stone, the load of ink it has from the inking slab, the significance of the sound it makes, the down-pressure from the arms, the sidewise thrust, the pinch of the fingers on the handles and what the pinch does, the "drag" on the surface; all this is non-existant to you unless you have the roller in your own hands, and have had it there long enough and intelligently enough to learn these things. Pennell has indeed stood beside the press, but standing there taught him nothing about the use of the roller. The exponent of modern artistic methods thinks that a roller is just like

a lawn mower, and that all you have to do is to trundle it about on the stone as a child trundles its cart. He says, "The printer has an ink roller covered with leather, and fitted with handles. It is several inches in diameter and the whole affair is about a foot-and-a-half long." He was too indifferent and contemptuous of it to measure it, and too slovenly an observer to see it truly. It is four inches in diameter and fourteen inches in length. He further describes it as being "made in one piece". It is not; the cylinder is bored and handles inserted in the ends. "And covers for the hands (they are not covers for the hands, but covers for the handles) have to be used to prevent blisters from the revolving handles." They are not "revolving handles". The whole roller, including the handles, revolves. After this display of intelligence about and respect for the most important instrument the lithographer possesses, he goes on, naturally, to tell what he thinks it ought to be. He says, "The roller is typical of the unintelligent, unexperimental methods of lithographers. The modern etching roller revolves on bearings, the handles remain stationary. No lithographer or lithographic material maker has had the sense to apply this method." And then the never failing squirt of venom, "but he makes something out of the covers."

Some day I am going to write about modern artistic methods with the violin. First and last, I have seen a good many people play the fiddle; I am sure I could do it as well as Mr. Pennell can write about lithography. The bow, for instance,--well, it is a slender stick about two feet long with some horsehair strung along one side of it. How is that? It is not a bit more of a burlesque than is Pennell's description of the lithographer's roller.

An army of skilled workmen had been using these rollers for ages; all the fine lithographs in the world had been created by its

use. Senefelder himself invented it, as he did also the leather covers for the handles, those handles which Mr. Pennell thinks have been kept in existence all over the world for a hundred years in order that somebody might make a little money selling them. There must have been days when the President of the Senefelder Club read his lithographic Bible, Senefleder's book, rather carelessly. Otherwise he would have come upon a passage where Senefelder deals with this very idea of a roller like a lawn mower, with movable handles, and what he says about it is this, "It is not well to have movable handles on the roller, because it is likely to roll over the stone too lightly and it is not within one's power to lay on the ink thoroughly."

Our author has dealt with the inks habitually used by the craftsmen in their work, and condemned them; he has dealt with the best printing plant in Germany and, after having driven the printer into revolt, condemned it; he mentions frequently a sort of abstract orgre called "the printer", and always in a derogatory tone; he has dealt with the roller, the whole affair a foot-and-a-half long; and all wrong. He has prattled about what that dangerous and mysterious thing "the acid" will or won't do. Concerning which acid, there is a single occasion where he commits himself to a definite figure, and here it is: "You etch," he says, "with a soft brush charged with nitric acid and water, twenty parts of acid to one of water." There is not a printer on earth who does not know that this is impossible. But the reading public does not know it; they swallow all this with "unwearied gizzard", and literary critics pass the book into our public libraries with a respectful O.K.. It sounds sort of blind and technical. And then, hasn't the name of Pennell been in their ears for forty years, and naturally a man like that "can't be wrong". One man, in his innocence, actually compiled the etch Pennell prescribes,

I knew of him, and put it upon his stone, whereupon the drawing was instantly boiled out of existence. Whas has really happened is that the President of the Senefelder Club, whether from ignorance or sheer slovenliness we do not know, has turned the formula around. He has heard, with his ears, of a formula that sounded about like that, but never having mixed it or used it, it is to him a mere verbal memory. And so when he writes it down he puts water where acid should be and acid where water should be. No one not an utter outsider could have made such a blunder, or could have come upon it in the proof sheets without an electric shock of horror. It affects the eye of a printer as a sailor would be if his orders got "leeward" and "windward" mixed up,--shipwreck in either case. And yet when to the Curator of the Prints in the Brooklyn Museum of Arts and Sciences, my friend Miss Hutchinson, I criticised Pennell, she merely laughed and remarked that "two of a trade could never agree".

Viewed from the Pennell pinnacle, the usages universally followed in inking up a stone, and the theories derived from them, are all wrong. We printers print from clean stones; Pennell prefers dirty ones. To get our stones clean, before beginning to print, we "wash out" the crayon of the design with a solvent, and roll it up with ink. This is done everywhere. I have done it thousands of times and on the most delicate work. I even did it to Pennell's own work, on the night already referred to, before the Association of American Artists. I said to the audience, "Mr. Pennell has written in his book that a drawing that has been washed out cannot be brought back by rolling; I will now proceed to perform this impossibility." Which I did, and that was that. What I referred to, in the Pennell book, is this passage: "The printer, when he has got the stone properly and rightly rolled up, will, if not stopped, pour some turpentine on the stone and wash all the ink and apparently the entire drawing off

the stone to clean it. This should never be permitted." "The theory," he says, "is that the grease has sunk in the stone, which is a fact, and that the ink roller will bring back the drawing, which is not a fact." Here he is almost as amusing as he was in his reversed etch, and if you will turn this also end for end, it will then be true. For it is a fact that the roller brings back the drawing, and, whatever some people's theory may be, it is not a fact that "grease" has "sunk into" the stone.

Let us consider a moment the claim Pennell is always making, from the housetops, that "you can do on paper anything you can do on stone", and that what you do on paper will transfer exactly, and print exactly as you rew it. If this were true, the artist's business would be finished when his drawing was finished. That is not true, at least in his own practice, and that it isn't true is proven on every page of his own book, which relates entirely to working at the stone after the design has come off the paper. He says,--imagining an artist and his printer viewing a proof,--that it is "the artist's business to point out to the printer where it should be made to print lighter and where darker." Here again he passes into a world quite outside the range of criticism. It is not the business of the printer, or of the printing, to determine the lights and darks of the design; it is the business of the artist to do that in the drawing. To ask the printer to take a hand in readjusting the values which the draughtsman has already determined with his crayon, is to confuse two functions hopelessly. It is the business of the artist to draw what he wants printed. It is not his business, or that of the printer, to try to print what he did not draw. Hullmandel tells us "the best rule to follow is to make the drawing as nearly as possible what the print is intended to be", and "the impression, as much as can be done, similar

to the original drawing." Thomas R. Way says, "The printer's work ought to be, and can be, a simple and regular repetition of the proof." Notice that this skilled printer is not satisfied merely to affirm what ought to be; he pauses and inserts the statement that it can be. In the chapter on printing in my own book, "Lithography for Artists", I say, "The function of the drawing is to define the artist's intention in regard to every line and tone. The function of the printing is to reproduce this defined intention by ~~reproducint~~ reproducing the drawing."

Hullmandel was not only a specialist in printing but was himself a crayonstone draughtsman. If I am not mistaken, so was Way. And certainly if I am not a draughtsman, at any rate I have made a lot of drawings on stone. Here, then is a century of the craft represented, Hullmandel, Way, and myself,--each an artist and printer, each a printer and artist,--in perfect agreement. But does Pennell agree? Distinctly not; he is not of the agreeing kind. Does he learn anything? Again, distinctly not; he has learned everything already--from Whistler. The very fact of a general professional agreement is an inspiration to Pennell to do the opposite. It gratifies his ego and makes him conspicuous.

There are types of men who think that the creative function means flying in the face of the human race, and that a state of chronic rebelliousness against things as they are is a happy and admirable state of mind. My friend, ~~Harvey~~ Hervey White, once expressed it in its simplest form. He said he "didn't agree with God". In lithography, Pennell doesn't agree with God. He has stood by the press and looked into the matter, and it is all wrong--ink, printers, rollers--everything. He is in rebellion. Everybody knows that rebelling is good enough fun if only you are sufficiently careful in selecting what to rebel against. Unfortunately for the professional rebeller, who doesn't agree with God, the technical crafts are full of facts,

full of God, if you will, full of substances--physical and chemical ultimates to rebel against which is simply to beckon in the fool-killer. You cannot rebel against a cast iron press; you can't bulldoze and ballyhoo off the scene the relation of acid to alkali. And this is practically what such people are constantly trying to do; which explains why they are forever in hot water, crying, "Woe! Woe!", and kicking the printer downstairs. The printer is not in rebellion; he has learned, in the golden words of Professor Jackson, to "watch and obey". And by obeying the laws of his tools he makes them his servants--delightful servants.

Well, when the artist has pointed out which parts he wants the printer to print light and which parts dark, the printer tells him that to lighten a part he must apply acid and to darken a part he must apply ink and turpentine. Pennell is sure that that is not the way, and that "he only does it to annoy because he knows it teases. . ." The printer only says so because it is "far simpler and quicker" for him, and "in case of failure, the artist is at once blamed."

"There is an artistic method of printing artistic lithographs." This he writes, and puts a period. The implication is that the chemistry and physics which control common printing will do something different for "artistic" printing. He does not define his idea in quite this way, but this is what is in the back of his head. Judging from his own descriptions of his own experiences, artistic printing consists in going into a state of single combat against your tools and your printer. It is to squabble and mess for every print, and be forever and a day at it. It is getting all sorts of accidental and diseased results, by ruinous means, results the artist "wants", regardless of the life of the stone, of or anything else. Results that

the printer, poor devil, does not want, because he sees the ruin ahead. This is what, as Pennell manages it, artistic printing turns out to be.

He thinks that, "it is almost certain that in an edition of twenty-five or fifty, the printer will have to repeatedly strengthen or weaken his ink, clean the slab, etc. . ." Discount this statement ninety per cent. "With all possible care and forethought, the drawing may begin to spread." Yes, indeed it may if "etched as little as possible", according to Pennell's instructions. When etched properly and inked properly, the work never spreads in fifty proofs. If, owing to mismanagement, of which under-etching is the most fatal kind, it prints too strongly, "the artist" is to stand by the stone and dab pumice powder on it. "This will probably have to be repeated frequently by the artist, standing by the printer, but no artist who cares for his work will object to improving it if he can." Pathetic! The poor, yearning artist caring for his work, after disagreeing with God about the etching, and so now having a stone so sick it can only be kept alive while its father and wet-nurse peppers it with pumice powder. Saddening picture.

Returning our handkerchiefs to our pockets, however, the thought will bob up again that all this printing lighter and printing darker, all this turpentining and etching and pumicing, implies with undeniable clearness, that the prints are constantly varying from each other. If they do this, they knock the Pennell theory of transfer sky high. This theory is that the "stone yields the actual design." Otherwise it would be nonsensical for Mrs. Pennell to talk of Whistler as "~~bring~~ bringing home a masterpiece", when what he has brought home is a sketch on a bit of Japan paper. If this is a masterpiece, on paper, then the print, to be this same masterpiece, must be exactly like it. Mr. Whistler certainly was not a printer. To be a master

of Senefelder's process is to be a master printer. If, as Mrs. Pennell declares, a man outdoors carrying in his vest pocket a solver matchbox with a piece of crayon in it, and a tiny portfolio containing a few sheets of Japanese paper, can create a lithographic "masterpiece", then, evidently, it is not the mastery of the Senefelder invention that entitles "the greatest lithographer in the world", to that name. Evidently his mastership does not lie in Senefelder's world at all; it lies in the world of paper drawing. Very well, let it go at that. Only, this throws all the greater emphasis on the tremendous importance of the printing. The print certainly must give the masterpiece exactly as it already exists,--on paper.

On Mondays and Wednesdays, it is the Pennell contention that transfer lithography gives a print that is exactly equivalent to the original. It is so close that Mr. Pennell will not even allow us to call it a reproduction; he declares it to be merely a "multiplication". And Mrs. Pennell finds it closer than a "mere fac-simile", it is the "actual design". On Tuesdays and Thursdays, we reverse ourselves and crawl out on the other horn of the dilemma, discoursing at length about how Whistler re-worked his drawings after a printer had transferred them, and how much work, which Whistler "never shirked" was necessary. And Mr. Pennell, page after page, stumbles ~~in~~ on trying to tell how to make a transferred design lighter in spots and darker in spots, and what the artist must do to the printer to make him produce these changes.

Pennell's account of the printing makes it an imperfect, unreliable, tragic adventure. Only with the greatest difficulty can the brains of two men get from a stone twenty-five or fifty prints, and no two of these will be alike. This shows two things: that Pennell does not understnad printing, and that the transfer method

is an imperfect one. In neither the work of Pennell nor in that of Whistler do we see it producing, or coming anywhere near producing, what its partisans say it will produce, "the design itself",--the masterpiece, already done, on paper. Men who make real lithographs draw on stone. They do not have all these agonies, for the prints they get, in the natural course of events, do give back whatever masterpiece was on the stone. And it is not usually necessary to kill a printer.

I digress, I know, but I also return. We find Mr. Pennell at hands-grips with the printer and with the problem of how to make him behave. He is saying that the stone, as the printing continues, grows upon itself, as a field rock grows moss, a "tone or bloom". This was not, of course, a part of the original masterpiece, the drawing. However, Pennell professes to like this "bloom or tone" accidentally added to the design, and invents schemes to prevent the printer from getting rid of it. The English of this is as follows: The artist, acting under the self-invented delusion that "etching is the quickest way to spoil a stone" has bullied the printer into using so light an etch that its function, which is to keep the stone clean and free from tones and blooms, is badly performed. When the prints begin to take on color that was not in the original drawing, it is technically said that the stone "is running smutty". This is Pennell's "bloom". The causes that produce it produce at the same time a darkening of the design itself; it begins to "spread". To hold back the growth of both of these evils, the wretched printer starts to wash out the stone, roll again, and re-etch. But the artist stops him. No, it must not be; the washout is a "suicidal method"; it "cannot be permitted". He tells us he knows an "artistic way of printing", but he does not attempt to show it with his hands; and when he tries to

do so with his tongue, somehow it doesn't come clear or tally with the known powers of the materials. Only a miracle could do what he wants done, could make the prints go lighter in the darks and at the same time darker in the lights. The same causes that darken the lights into "tones" and "blooms" also darken the darks into spreads. And influences that cause the spreads to go lighter and disappear also cause the tones and blooms to disappear. You cannot have it both ways. Only a Pennell can do that. At some such impasse as this, I am sure it was, that the German printer "refused to go on". To art writers in the magazines and newspapers, Mr. Pennell's writing may sound convincing, or at any rate, impressive. I have never heard one of them criticize him. But to printers, he is absurd and his pretence of being able to instruct the uninstructed in lithographic printing is a simple case of monumental bluff.

Of some of his "artistic methods" he remarks that the printer abhors them, but to the artist they are a delight. "The artist", is, for practical purposes, Mr. Pennell himself. It is not true that typical artists delight in these or any other foolish procedures. The reason the printer abominates them is because they are ineffectual and silly; he would be an idiot printer if he did not.

"There is small doubt that in the future, artists will be, in fact they are, able to print tones on a single stone (he does not mean print on a stone, though he says so; he means print from a stone) by wiping, as in etching." Mr. T. R. Way, a printer and son of a printer, has published the statement that "In lithography, there is no possibility of the printer's assisting the drawing by the spreading of the ink, as is frequently done in etching". To a man of Mr. Way's intelligence, it seemed superfluous to explain why this impossibility exists. Mr. Pennell thinks it does not exist, but it does,

and I will tell you why. It is because if you were to wipe ink around over the lights of the stone, the grease of it would tend to attack the limestone and would very soon form permanent smuts. These would steadily increase in darkness and in size, and thus the stone would be ruined. In etching, the case is entirely different. There is no chemical reaction between the ink and the copper surface , and consequently no adhesion beyond the natural stickiness of the ink. The printer's rag can wipe the plate perfectly clean each time, and for each new print lay a new tone, fresh, according to the taste of the printer. The copper cannot smut. To ignore these chemical facts and babble about making ink and stone act as ink and copper act is to talk like a child.

There are, and always have been, sound and usable ways of getting a tone on the surface of the stone. Most of them are the common property of the ~~draft~~ craft. I have, in the course of extensive experiments in my own studio, hit upon one or two new ones, but I have not bothered to post them on the bulletin board of the world. If you add alkali to the damping water, it will tend to saponify the fatty acids in the oil of which the ink is made. In this condition, the roller will lay down a very delicate and even tone. I have printed tones also by putting a little gum and lampblack in the damping water. You can substitute other pigments for black, say raw umber, and thus print a goldenish tone. You can do all sorts of interesting things, if you watch and obey your materials. It is when the artist has not learned to obey, when, encouraged from the side lines by the yells of the professional rebellers, he thinks he can impose his temperament on his material, that he has such a hell of a time.

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Having shown that Mrs. Pennell believes that a lithograph is a drawing, and that it is made on a chemically prepared stone, and that Mr. Pennell's notions of printing are childish and his pretense of knowledge a bluff, I will now speak of "Lithography and Lithographers" as a book. Being the only book of its kind, it has the field to itself. I bought it in London when it first came out, in 1915. I was greener then. I thought I should learn something from it. I did. Some of the things I learned I have already told; some are untellable; some I shall now unfold.

On the surface, the volume seems fair enough; a quantity of information, dug up and set down, about the past; a technical part about the latest "modern methods" of printing; and a quantity of illustrations. I have just said some things about the modern methods part of the book. The historical part, so far as it is history and not opinion, I do not deal with; my business is not that of historian. The illustrations I shall come to presently.

I said that when I bought the book I hoped to learn something, and that I would unfold forthwith something I had learned. I have learned that the technical part is worse than worthless. I have learned that the historical part contains numerous historically interesting facts. I have learned that both the authors emit an aura of antagonism. In the jargon of the psychologist, they exhibit a "defense mechanism". Their feeling is that of people who always are in a fight. Their tone, therefore,--a singularly unanimous one,--is a worried one. They are not at ease, pleasantly enjoying enjoyable things, or simply telling about matters of interest; that is not what one gets from the book at all. The reader feels almost constantly an undercurrent of irritation, resentfulness, and insolence. It is hardly less so in Mrs. Pennell's history than it is in her husband's technology.

If, for purposes of clarity, I lay aside for the present any question of the value of the technology as such, it will help me not to be misunderstood when I point out that, along with any other aims it may have, it certainly has the aim of "putting over" certain ideas. It is propaganda. To what extent these ideas are those of a time, or those of a group, or of merely the Pennells, is not now the point. The point is the ideas themselves.

In New York, at the National Arts Club, from the platform, Mr. Pennell gave out that Whistler was the greatest lithographer who ever lived. When George Bellows, at my elbow, expressed a different opinion, Mr. Pennell, with an insulting air, replied, "Well, it doesn't make any difference what you think." Bellows had had a press in his studio and drawn on stone for years and knew more about the process than ten of Whistler and twenty of Pennell rolled into one. I tell this incident because it is the same attitude of "what-you-think-makes-no-difference, so go to the devil" that you feel in the Pennell book. And you feel that its cause in the book is, just as its cause at the club was, a determination to "put over" Whistler, to ram him down the throat, as it were, of a world that is irritatingly reluctant to swallow him--whole. Two continents have long been aware that the Pennell mind was devoid of perspective where Whistler was concerned.

Whistler was "right, as always", Mrs. Pennell affirms. Such a line of talk puts her out of court, to begin with. Nobody is as right as all that. In the Bible we read that "It repented the Lord that he had made man on the earth". Even God is not right always. Only Whistler. To examine into the origin of this obsession is not my purpose. Most people would not think the riddle too hard to be guessed. However, it existed. And the star of Whistler's ascendency was the

star to which the Pennells hitched their wagon. To what extent the star was pulling the wagon and to what extent the wagon was pushing the star is not to be exactly determined. Exactly, I say, but broadly, the star was pulling the wagon. Hence, the anxiety of the wagon for the star. If the star was right "always", and you always followed it and shouted for it, then you would always be right too. And it didn't make any difference what anybody else thought.

Whistler had been amusing himself for years, at an average of once a month, by making little sketches on paper with lithographic chalk and having Way transfer them to stone and print them. His purpose in having them printed was to increase their number. Inn esthetic intention, they did not differ at all from any other sketches that any one, or he himself, might have made with a lead pencil. They were simply pencil sketches in which the pencil was a crayon, with soap in it. All very good. I do not know who first seriously promulgated the idea that these, or similar sketches, if transferred and printed became lithographs. It makes no particular difference anyway whether the party was Way or Whistler, or what his name was. But the Way people could see that as paper was handier than stone, probably more artists could be induced to use it; and so they did what they could to disseminate the idea that artists who drew on paper and had the work transferred and printed were making "lithographs".

So far as Whistler was concerned, the idea took root. The qualities to be had on stone and not to be had on paper, he did not value so much as he valued his own ease and convenience in running about outdoors with a tiny portfolio of paper and a bit of crayon

in a matchbox in his waistcoat pocket. With this equipment, Mrs. Pennell says, he went out and "brought back a masterpiece". Whether or not it was a masterly drawing, it was not a lithograph, masterful or other, until it had been transferred, with better or worse success, and printed as well as might be, not by Whistler, but by Mr. Way. That the transfers made from the Whistler sketches rendered the originals with different degrees of success is history. One may read it in Mrs. Pennell's accounts, and he may read it even more clearly in the prints themselves. Whistler had no end of trouble, was rarely satisfied, worked much to correct on the stone defects which, if transfer were the dead sure thing that the Pennells claimed, would never have been there. Twenty years after his first experiments, he published in print that he had found the process "restricted indeed", and referred to himself and unnamed others as "Us beginners". On the same page, in the Pennell volume, you find Mrs. Pennell describing this beginner as the "greatest lithographer of modern times".

To shorten my wanderings; the Pennell book, among other things which it is, is distinctly an advertisement for, and a partisan defence of, Whistler as a lithographer. To Whistler as a painter and an etcher, I make my entirely respectful bow,--and I have practiced both these arts. But when he is presented to a world forewarned to get down on its knees, as a lithographer, to say nothing of being a great one--the greatest in the world--my knees do not bend and my face does grin. For the matter of that, the general public somehow never quite took the Pennell view, nor does it yet. It has been exhorted, rebuked, sued at law, scorned, enticed by speculative suggestion, addressed indeed in all the tones known to the determined propagandist,--for years and years. And still the Market is dull. It is yet. One of the foremost print dealers in New York said to

me, "They don't sell. Oh, yes, we have them, and the other dealers have them, and we put them on exhibition and pass them around among ourselves, but they are not good sellers." Another dealer, of a still more important house, in a letter to me referred to Whistler's prints as having been "at last, after thirty years of Pennell's hornblowing, been absorbed by the buying public".

Well, Whistler made transfers. Pennell made transfers. It is easy; it suits the perambulating illustrator and perpetual advertiser perfectly. A few others experiment along the same line. Then outcries and flags and announcings that the great art of lithography, taken under the wing of the greatest painter in the world, had been "revived", and that the artists are "carrying on the best traditions of the past"--Mrs. Pennell's words. In a lecture, Pennell once remarked of himself, "I am really a newspaper man." And dead right, for once, he was. Quite in the spirit of the conscienceless yellow press is the claim that the best traditions of the past, the past of crayonstone, which knew not transfer,--the past--all of it--Harding, Haghe, Lane, Daumier, Givarni, scores of them, all masters, all creating by their work the "traditions of the past",--I say that to claim that these men were the forefathers of the Whistler and Pennell transfers is quite in the spirit of the conscienceless yellow press. When, in these transfers, we are invited to see the "revival" of the art of the masters of crayonstone, it is simply one more "burst of cheek". It is a deceptive and false claim. To make it and publish it is charlatanism.

Pennell, as a practicing illustrator, was a good one. Some of the finest drawings of their kind that I ever saw were from his hand. As he practiced his business, it involved a great amount of travelling hither and yon. Stones were less convenient to transport than sheets of paper. He took paper. And having taken it he, being

himself, naturally announces, and keeps on announcing that "you can do anything on paper that you can do on stone". If this were true the world would not have waited a century for Pennell to find it out; nor would it need so much propaganda. It is not true. I never knew of but one person who ~~though~~ thought, or claimed to think, it was true. He was the President of the Senefelder Club.

However, business is business, and it became a matter of business to get the public to accept transfer work as being lithography. If you could do that perhaps you could get them to believe that you could do anything on paper that you could do on stone. And if that once went down, then you might hope they would swallow the assertion that the Whistler and Pennell transfers were a carrying on of the best traditions of the past. The Pennell book has a business reason for existing, and this is given in what I have just said. I have analyzed it until I am sure of my ground. Whatever else it may be, it is unmistakably a solid piece of sustained propaganda against crayonstone and for transfer. And it has years and years ago gone into every public library in the United States, and into the libraries of all the museums; and wherever, in all this broad land, a person comes into any of these libraries or museums to find out about lithography, the Pennell book is handed out.

In 1929, at the Art Institute of Chicago, I gave the Scammon Lectures. My subject was Lithography. I gave much of what I am giving now. My lectures were not published. My book, "Lithography for Artists", which the Institute did publish and did announce as the Scammon Lectures is not the Scammon Lectures. It had no connection with them; it was completed years before I ever heard of the Scammon Lectures. The talks I gave were, however, stenographically taken down, so that I know what I really did say, and, as already

remarked, I said what I am saying now about the question of transfers and the deceptiveness of calling them lithographs, and the part the Pennell book played in getting the public to use this name. Pennell would froth at the mouth if you offered to doubt that a transfer was a lithograph. But why the frothing at the mouth? Whence the chronic irritability on the point except from an uneasy feeling that something, somehow, was wrong?

No one can doubt that Mr. Pennell knew he was trying to put something over. He feared lest the public discover that his kind of work could not be carrying on the best traditions of the past, or any tradition at all, because it was not in the tradition. The tradition was to draw on stone and he was not drawing on stone. Hence the various smoke screens of bluff and verbage to distract attention from this fact. Pennell was a business man, engaged in a business. He was a producer, producing certain wares. These wares, called lithographs, he put before the public. He tried in every way to attach to them the glamour and honor that deservedly attached to the differently-made lithographs of the past. They were presented as "carrying on the best traditions". In reality, aside from this matter of the glamour of the past, these designs of Pennells could have been perfectly reproduced by an ordinary reproductive process. But under the name of "lithographs", they had a different sound and could be sold for more. Now that I bring back some of them to my mind, I am impelled to say again what I have said before, that Pennell made some very excellent drawings. I do not have to force myself grudgingly to "admit" it; I say it freely and gladly. And I will go out of my way to allow Mr. Pennell almost any merit you please, except one. I will not allow that he is a lithographer or that his prints are lithography. Walter Sickert was right.

I will now quote an expression of judgment by a third New York dealer, not quoted before, and the three I have now referred to are the three most important houses in the city. We talked about lithography (they had on a show of my prints at the time) and I was told that they had difficulty in interesting the public in lithographs. And one of the reasons volunteered to me was that "the artists were too lazy to draw on stone". "Yes," I replied, "and Pennell going around telling everybody that paper is just as good" "That's because he makes his that way." was the instant rejoinder. This talk was with Mr. Wunderlich, of Kennedy and Company. Mr. Wunderlich also expressed the opinion that the main reason why people were not much interested in lithographs was because so few were being made that were good enough to excite interest. And I agreed with him.

A public drilled by critics and curators, librarians, museums, and "hanging committees" to believe that the Whistler and Pennell things were lithography, naturally would, and certainly did, take a good look at them and then decide that there was nothing in lithography to excite special interest. It would see, just as I or anyone can see, that there is no esthetically significant difference between these so-called lithographs and any number of excellent process reproductions that we see around us in books and magazines all the time. And by this deceptive appropriation of the name that belongs to the entirely distinct art of genuine lithography--crayon-stone--this better art is grossly misrepresented and its chances of being understood by the people enormously reduced. This constitutes a great injustice and loss to both the public and the artists. Against this injustice and loss I have long been fighting; and, by writing this book, am still fighting. "Truth crushed to earth,--etc. . ."

I would not exaggerate the feeling, but I do have a feeling that the Pennell book is open to some criticism in the matter of its illustrations. Technical people, of course, know at a glance that these are mostly half-tone reproductions; the great majority much reduced in scale. But I fancy most casual readers would think that in looking at them they were learning something about lithography. Whereas, they are only learning about the subject matter, not about lithography, for they are not looking at lithographs. And if they think they are, then they are deceived. It would have been well, to have inserted in the text, near the beginning, some explanation of this, telling what the pictures themselves were, instead of stressing so hard what they were from. "From", in some cases, means quite far from. Also, no matter what size a picture may be in the original, when you run it through a camera, as has been done with every one of these illustrations, you can bring it out any size you please. Reductions in size affect character. In none of these pictures are you told what the size of the original was. In a technical book, this might well have been done. I remember my own vast surprise when, toddling infant in lithography as I then was, having looked at Pennell's illustrations, I went over to the British Museum and saw the originals, full sized and in their natural beauty.

The illustrations number seventy-nine, the greatest majority half-tones. A few, more resembling the look of lithographs, are catalogued as "lithotints". The book contains no example of a print from a drawing on stone, or even from a paper drawing that has been transferred to stone. One may read all the text and look at every picture and yet remain without experience of what an actual lithograph looks like. Still, it is not so much what they do not do as what they do do that is important. They appear to have been assembled,

as to both matter and manner, to help on the propaganda for transfer and to do all the harm possible to crayonstone. I will proceed to tell what gives this appearance.

I apologize for my tedious iteration; I cannot avoid it, weary as I am of it; I mean ~~mu~~ my iteration of the fact that till the Ways came along and undertook to "revive"lithography, via Whistler's transfers and Whistler's reputation, the world's artistic lithographs had been crayonstones. Countless thousands of them had been made. Of transfers, if there were any, the records of these times speak not. The age which this work filled was passing away. The process was well known, but artists were not doing much with it. Enters now Mr. Pennell. Being physicall a lightweight, at sight he hates the heavy stone, shrinking from the imagined strain of lifting it. Hating it, he sneers at it, referring sarcastically to the need of a "derrick and a team of horses" in using it. An illustrator who confines himself to objective phenomena want something he can tuck under his arm and run around with,--light, like paper. Very well then, down with crayonstone; we repudiate stone; we rebel. We set on foot everything we can think of as propaganda against it, and of propaganda in favor of transfer. The Pennell book is a blast in this campaign. The Illustrations are subordinated to this purpose.

Observe: you would expect the seventy-nine illustrations would give examples in some, at least approximately, proportional representation. I mean proportion either as determined by simple counting, or as indicated by wealth of achievement and historic standing. Do we find any such proportional representation? Not at all. The choosing, the indexing, and describing, even the very omissions are such as unduly favor transfer. Both numerically and

in historic proportion, crayonstones should have been shown about as a thousand to one. Far otherwise are they shown. The arrangement offered gives the impression that in the history of lithography, all along, two kinds of lithographs have been produced; one on stone, rather awkward, and the other by up-to-date men, on paper.

A study of the list of illustrations shows that the number of crayonstones, acknowledged as such, is exactly ten,--out of seventy-nine,--less than eight per cent. Whereas, transfers, listed as "on paper", number sixteen,--nearly thirteen per cent. According to this, transfers outnumber crayonstones by more than three to two. This gives the impression that in the world of lithography some two-thirds of the work has been transfer. This makes clear what I mean by propaganda,--the distortion of history in favor of a purpose not apparent. Furthermore, on examining these seventy-nine pictures themselves, it turns out that while ten crayonstones are correctly labelled, and sixteen transfers, there remain unlabelled, fifty-three others. And of this fifty-three, not labelled at all, thirty are crayonstones. Which is to say that, so far as naming them is concerned, the authors have suppressed three out of four of the lithographs done on stone. Looking at the labelled sixteen on paper and the ten on stone, it would seem probable that out of the total, twenty per cent were paper and fourteen per cent stone. But if you ignore the authors' labelling and look for yourself, and add to the listed ten crayonstones the unlisted thirty, it works out that the stone has not fourteen per cent of the whole list, but about fifty per cent. Propaganda. Another item, not bulky, but significant. On page 307, is reproduced a print printed by Lemercier, drawn by Willette. It is as obviously a stone drawing as it possibly could be. Yet it is catalogued as "method unknown".

This same extreme prejudice in favor of transfer over crayonstone is,--I was about to write that all through both the historical as well as the technical part of the book it can be traced, but traced is too mild a word; it does not need tracing; you can't get away from it; it sticks out in bumps. By way of buttressing this prime contention, the names of Whistler and Senefelder are frequently used; perhaps I ought to have said, misused. Let us stop a moment and look into the Senefelder part of this, Senefelder, as all know, except the Pennells, was not an artist, nor an art critic; he was a mechanical inventor. When he invented lithography he was not thinking of art at all; he was thinking of the great commercial value of a cheap and reliable reproductive process. Later on, when the artists got at it and showed what they could do, Senefelder saw things he did not have any idea of when he was doing the inventing. We should remember that it was twenty years after he invented the process that he wrote his book; and that during that twenty years the artists had been doing things that considerably enlarged even the inventor's ideas of his own invention.

The first essential of a reproductive process is that a design shall be producible on a second surface by means of contact with a first one. Hence, Senefelder's experiments, already given. He wanted to be able to reproduce such things as business letterheads, sheets of music, and so on. If a music writer would write with soapy ink on paper, the writing could be made to print itself off on stone, from which great numbers could be taken. Very good; it was a practicable scheme, for the purpose. It is to this day the very foundation of the whole vast structure of commercial lithography. Senefelder found if he covered with a gelatinous film the paper that was to be written on, the transferring of the writing to

stone was facilitated. And so he invented a suitable gummy paper, known in various modifications to this day as "transfer paper". This was of immense commercial importance. Senefelder, seeing this, remarks under the heading, "Transfer and Tracing", "Lithography has a unique way of transferring to stone a drawing or inscription that is first put on paper with a fatty substance. This is possible only for lithography, and I incline to the belief that it is the most important of all my inventions." I am quoting this to show how obviously Senefelder was thinking of commercial "importance", and of nothing else, when that remark was made. Pennell, over and over, tries to make it appear that Senefelder was thinking of artistic things; and, in fact, that he was, in advance as it were, recommending Mr. Pennell to make transfers instead of drawing on the stone. This is another case of propaganda and twisting things so that they look as if they were something that they are not. To justify my interpretation of Senefelder's intention, I will continue a little farther the interrupted quotation. "It makes it unnecessary to learn reverse writing. Everybody who can write on ordinary paper with ordinary ink can do so with the chemical transfer ink, and this writing can be transferred to stone and manifolded indefinitely. In Munich and Petersberg this method has been introduced for government work. The measures adopted in council are written during the session by the secretary, with chemical ink on paper, and then sent to the printery." He goes on to commend it also to commanders in war, to officers who are drawing plans, to "authors and scientists", and, last of all, it occurs to him to observe that "even artists will respect the method when its gradual perfection enables them to draw their pictures on paper with ink or crayon and reproduce them." We note that our inventor is not stating a case that is; he is predicting. What he

predicts is that "When" the process is perfect, artists will respect it. Just so; when it is, we shall. So far, it isn't.

And at that he does not say, as Pennell makes him, that it is the most important of all his inventions; he speaks doubtfully, saying only that he "is inclined to think" it is. Just one more twist. I will show a case or two of the misuse of Senefelder's name that I object to. The Pennell book, on page 14, says, "The drawing may be produced either by the artist upon stone. . .". It is trying to say that the artist may draw upon either paper or stone, but the strain is too much; what it does say is, "the drawing may be produced either by the artist upon stone, or it may be made upon paper, the method Senefelder commends, etc. . ." This is what I referred to,--putting the Pennell transfers under the wing of Senefelder; whereas, there is hardly a ghost of actuality back of the statement that Senefelder "commends" the artist to make transfers in preference to crayonstones. Reading such things recalls the remark of William Rudge, the publisher, to me one day, "I guess Joe has been getting away with murder for years".

Senefelder is again dragged in to discredit the stone by the statement that he, Senefelder, "tried to do away with the stone entirely, etc. . ." And then again: "After a hundred years of experimenting, till today, no such satisfactory material has been found for printing from as the Kelheim stone." Not a glimmer of a hint that the stone surface, on which the whole historic world of crayonstone was drawn, has any other interest than to be printed from. Even this is not enough; we are going to have it pushed down our throats, that although for a variety of obscure reasons the stone has somehow, kept its place, yet this "is not due to any inherent artistic quality or merit in it". The facts are otherwise. It is

precisely as a printing surface that modern plants are substituting zinc, whereas, as a drawing surface,--ignored or flatly denied by Mrs. Pennell,--it has the very highest "inherent" merit. And if the favoring of artistic work is an "artistic" merit, then even a stone really does have a merit more commonly ascribed to works of art. Naturally, if the stone had not had extraordinary merits as a drawing surface, we artists would not value it as we do. It is we, the people who use it, that know whether it has merit or not, and not the people who stand by the press, nor the people who write. If merit was not there, Bellows might just as well have done his work on paper. And Albert Sterner would never have written to me, "I did say and I do say that a paper lithograph cannot come within a thousand miles of a stone drawing."

My present object, however, is not to try to disprove the Pennell contention; all history disproves it; it is to show that the book possesses an "animus" against crayonstone, and that it stops at nothing in trying to make the public share it. The great harm that it has done and constantly is doing lies in that. And that is why I wish to destroy it. I repeat, that it is not what it appears to be,--a genuine, all-round treatise on lithography by competent authors; it is propaganda. The public, ignorant and innocent, must be made to forget; it must be flim-flammed and muddled and confused by misnamings and implications and insinuations, to the end that it shall think, as Dr. Weitenkampf, of the print department of the New York Public Library thinks, and as Miss Hutchinson, the Curator of the prints in the Brooklyn Museum thinks, that Mr. Pennell's transfers are lithographs, "carrying on the best traditions of the past", with Whistler, "the greatest lithographer in the world" as

forerunner, and Senefelder, the inventor of the process, "commendig" his methods. With these gifts, think of the money Mr. Pennell would have coined as the head of an advertising agency.

In the actual history of the fine art, lithography, paper played a part, it it played any, so small as to be absolutely negligible. You could write a good history and not mention paper at all. But in the Pennell volume, paper crops up on every page, and if it does not crop up spontaneously, it is dragged up by the hair of its head. There are, by actual count, fifty-nine mentions of "paper", some merely using the word, some commending the method, and not one hinting of any shortcoming. Whereas, the stone comes in for derogatory comments and insidious side-slaps in sundry places; not once is it mentioned with praise. When Pennell wrote his, "Illustration of Books", he said, "It would be well if we drew always on stone", but this was twenty years before. By the time "Lithography and Lithographers" was on the stocks he had forgotten all that. On Page 74, Mrs. Pennell, speaking of Givarni and Daumier, tells us that they are said to have drawn "either on stone or zinc or metal plates (zinc, we must suppose, Mrs. Pennell thinks is not a metal), it is impossible to tell which." This gives the idea that zinc, or "metal plates" are so nearly like stone that it is not possible to tell them apart. In a word, the inference is that stone has no advantage over zinc, thus belittling and maligning the stone. The facts are, first, that Givarni and Daumier drew on stone; and second, that zinc is inferior to stone. Thomas R. Way publishes the statement that it is "lacking the refinement of stone work". Mrs. Pennell opines that "owing to the hurry of the printers", the artists just mentioned "probably did not work on paper". (I can think of nothing to say but, "Don't make me laugh; my lip's cracked!) No, they

"probably" did not; you could not have driven either of them to paper with a cat o'nine tails. The entirely gratuitous and imaginary "hurry of the printer" had nothing to do with it. It is propaganda. It is worded to give the impression that these masters of real lithography would have perhaps preferred paper, if there had only been time for it.

There is a school of thought, (to give it, by courtesy, that title) which starts by assuming that the fellow who is "agin the government" is always right. To be in a state of rebellion,--no matter against what,--is inherently fine. Fothergill Finch may be instances as an example. Fothergill Finch writes a poem:

"Observe me - - - I am in revolt!
You ask me what I am in revolt against?
Against you, fool, dolt, idiot, against everything."

When this attitude is brought over into art criticism, it results in remarks like some of those which Mrs. Pennell sprinkles freely as she sails along. She thinks the artists who "revolt" against the natural qualities of the stone,--that is, of the surface they draw on,--are more to be admired than those who use it. The unrevolting ones, she refers to as "slaves to the stone and the chalk". Whereas, Doré, for instance, was better; he was "indifferent to lithographic quality and therefore got his own character or mannerism into his work." Other artists, too, are complimented on having little appreciation of lithographic quality, "in consequence of which their lithographs were like their drawings in other mediums". This, she avers, is "just what constitutes their merit". If so, the great masters of the stone were all in error. I believe it was only Mr. Pennell whom Walter Sickert spoke of as a shocking bad critic.

PART V

CONCLUSION

There are always people whose minds are incapable of any feelings except about persons. Probably such people are more numerous than any other kind. They see life in terms of attractions and repulsions: I like him; I don't like him. Action tends to be seen as a form of combat. Hence, newspaper headlines describe football games as "clashes", and a tennis game is reported in the slang of fighting terms.

I have written this book in no sense as a form of personal combat. It is full of personalities, I know, but only as these bear on the impersonal principles and facts of the art I am discussing. Drawing is the basis of the visual arts--all of them. Whistler said to me, in conversation, "It's all the same thing, drawing and painting." Without trying to define the kind of importance, or the degree of importance, to humanity, of the visual arts, we may yet say that drawing has the highest value.

It is not mere picture making that I mean. With the innumerable masses of these produced by cameras, advertisers, and illustrators, our eyes are so clogged by excess of appeal that we tend to turn in disgust from any picture whatever. I mean drawing in its function as a mode of release for the human spirit. This is what drawing was to Rembrandt, to Apelles, to Leonardo, to George Bellows, to me. I gladly avail myself of the despised word, "culture", to say that it is the cultural value of the practice of drawing, to him who draws, that gives supreme rank to the art of drawing. It is because I appreciate it in its cultural capacity that I do what I can to forward its understanding, in this sense, and its practice, in this sense. And valuing the art thus highly, I cannot help valuing the means by which we practice it.

Drawing is making marks. Marks may be wet, as with ink, or dry, as with pencil. If one or the other of these had to be annihilated, our loss would be least in losing the wet sort. All the remaining ways of making marks could be grouped as forms of crayon,--dry substances that give a mark by abrasion upon a surface. Charcoal would be near one extreme; silverpoint, the other. And of all the intermediate forms the one that stretches out most nearly to these extremes is the lithographic crayon. I speak now of its full possibilities, not merely of those forms limited by commercial convenience in quantity production. In expressional power a perfect crayon is the best thing we have. And among all crayons, those perfectly chosen and adapted ones of the lithographic draughtsman, used on a perfectly adapted and chosen surface of grained stone, stand at the head. The range, in value, is from black to white; in texture, infinite; and in utter sensitiveness to the muscles that move it, nothing equals it. The fact that when made, a drawing can be printed in numbers is quite aside from all this, and belongs to an entirely different class of values.

It is because I see that very few people know lithography in this sense, as I do, that I am impelled to tell the others about it. I am sure that there are any number of artists who could and would make fine drawings, of value,--some of high value,--, I speak now not of money value, but of art value,--if they were truly informed of the nature of crayonstone. It is because the campaign in favor of transferring paper work instead of drawing on stone keeps them uncertain and confused, and keeps the public so also, that that campaign is an evil. It throws dust in the eyes of everybody. It does not favor the facts; it favors personal or commercial or institutional interests. It does not favor culture, which, in this connection

means art.

That the transfer campaign should have got its aims identified with the welfare of dealers, and individuals, and institutions, is not mysterious. Humanity is that way. Truth starts freely, unencumbered, darting from one ~~sould~~ soul to another by a thousand means,--alive, fluent, now poignantly terrible, now poignantly delightful. But Folly dogs her flight,--fearful and jealous of her freedom. And the love of truth, which is as near as man may come to truth, is no longer trusted. Truth is tied with definitions and words and reduced to a formula; the formula gives occasion for systems and institutions, to perpetuate the formula. The life of the soul of the race advances in this intermittent way,--accreting with time vast systems that offer themselves as truth itself. Systems and institutions are encrustations that life excretes, but soon leaves, empty sea shells on the shores of time,--forms only, the life gone. Thus religion, ideally the free lifting of the soul, presently is imprisoned and stifled in an ecclesiastical system. And natural customs, ideally the living creation of the days as they pass, gets stagnated into iron-bound legalities. And every one of these and other systems is a parasitic growth, tending always to smother the individual soul. Every institution, by its nature, centres in itself; exaggerates its own importance, and regards the race as a mere accessory to it.

Briefly: institutions, whether collegiate, legal, ecclesiastical, political, or, as museums devoted to the muses, do not make men; men make them. Christ said the Sabbath was for man, not man for the Sabbath. As a single example of the principle I have instanced how the Art Institute of Chicago preferred to keep blinders on the public's eyes rather than that the public should be helped to know the difference between transfers and crayonstones.

I have a great desire to have artists made acquainted with the truth about crayonstone, as a method of personal expression. I fight for this. I resent attempts to befog the situation. I have pointed out some of the reasons why some of the befogging is done.

The right thing to do in this matter would be for the Art Institute of Chicago to define crayonstone art and hold exhibitions that showed its character and power. The Print Club of Philadelphia would cease to refuse to recognize facts and begin to show prints properly named and distinguished. The Brooklyn Museum would no longer hold an exhibition of Pennell transfers where helpless hordes of public school childredn, marshalled by their teachers, swarm to see what "lithographs" are like, and go away misguided for life on that point. And the New York Public Library would classify, under suitable names, its lithographically printed prints, and exhibit them, in classes, each under its name and true colors.

And the artists of the country who are on the side of openness and fair play in this matter, would proceed to bring about an exhibition that should have in it nothing but the finest available examples of prints made from crayon drawings done on stone, advertised and catalogued as such, and with the announced purpose of letting people see what "lithography" rightly understood, really was.

And then they would organize a club whose object should be to forward public knowledge of the art of Crayonstone. I think it would be hopeless to go on using the word lithography; Pennell has dragged it in the mud and spoiled it. For the art that used to be called lithography, the name crayonstone is as good a name as any; in fact, there is no other. Except in some such ways as I have suggested, I see no way to "revive" and to get intelligent recognition

for this finest and most versatile of all modes of drawing. Let those who care for it study it with their own eyes, use it with their own hands, and exhibit it under a name that means nothing else but the thing it is applies to.